

Exhibit 1

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

PPG INDUSTRIES, INC.,

Case No. 2:12-CV-03526

Plaintiff-Counterclaim Defendant,
v.

UNITED STATES OF AMERICA;
UNITED STATES DEPARTMENT
OF COMMERCE; WILBUR ROSS, in
his official capacity as Secretary of
Commerce; and UNITED STATES
DEPARTMENT OF DEFENSE,

Defendants-Counterclaimants.

Declaration of Sue Chen

1. My name is Sue Chen and I am a Trial Attorney in the Environmental Defense Section of the Environment and Natural Resources Division at the U.S. Department of Justice. I represent Defendants in this matter, and I am thus familiar with these proceedings.
2. Attached as Att. 1 to this declaration is a true and complete copy of the 1990 Administrative Consent Order, signed by PPG and New Jersey and dated July 19, 1990, which was produced by PPG in this matter at PPGNPR0029975-30009.

3. Attached as Att. 2 to this declaration is a true and complete copy of PPG's Answers and Objections to Plaintiff's First Set of Interrogatories in *Exxon Corp. v. PPG Indus., Inc.*, Case No. W-001301-90 (N.J. Super. Ct. Law Div., Hudson Cty.), dated September 21, 1990, which was produced by PPG in this matter at PPGNPR0088221-95.
4. Attached as Att. 3 to this declaration is a true and complete copy of the 2009 Partial Consent Judgment between New Jersey and PPG in *New Jersey Department of Environmental Protection v. Honeywell International, Inc.*, Case No. HUD-C-77-05 (N.J. Super. Ct. Law Div., Hudson Cty.), filed on June 26, 2009, which was produced by PPG in this matter at PPGNPR0187321-51.
5. Attached as Att. 4 to this declaration is a true and complete copy of PPG's Amended Supplemental Objections and Responses to the United States' First Set of Interrogatories 21 through 25, served on the United States in this matter on May 22, 2014.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

Dated: 27 February 2018



SUE CHEN
U.S. Department of Justice
Environment & Natural Resources
Division
Environmental Defense Section
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Attachment 1



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

| | | |
|---------------------------------|---|----------------|
| IN THE MATTER OF | : | ADMINISTRATIVE |
| HUDSON COUNTY CHROMATE CHEMICAL | : | CONSENT |
| PRODUCTION WASTE SITES | : | ORDER |
| AND | : | |
| PPG INDUSTRIES, INC. | : | |

This Administrative Consent Order is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter "NJDEP" or the "Department") by N.J.S.A. 13:1D-1 et seq. and the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and the Spill Compensation and Control Act ("Spill Act"), N.J.S.A. 58:10-23.11a et seq., and duly delegated to the Assistant Director for the Division of Hazardous Waste Management pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. PPG Industries, Inc. is a Pennsylvania corporation with its principal place of business at One PPG Place, Pittsburgh, Pennsylvania, 15272. PPG is the successor to Pittsburgh Plate Glass Company, Natural Products Refining Company, Southern Alkali Corporation, and Columbia Southern Chemical Corporation.

2. PPG Industries, Inc., its predecessors and their subsidiaries (collectively hereinafter "PPG") owned and operated a chromate chemical production facility encompassing approximately 16.6 acres located on Garfield Avenue in the City of Jersey City, County of Hudson, State of New Jersey, on the site designated on the City of Jersey City 1987 municipal tax map as Block 2025.A, Lot 2.1, and Block 2026.A, Lots 1, 2.A, and 3.B (hereinafter "the Garfield Avenue Site"). On or about September 1, 1963, PPG ceased operations of the chromate chemical production facility at the Garfield Avenue Site.

3. The operations referenced in paragraph 2 above, resulted in the generation of chromite ore processing residue, which contains chromium and its compounds and may contain hexavalent chromium, which are hazardous substances as defined by the Spill Compensation and Control Act, specifically, N.J.S.A. 58:10-23.11bk, and the regulation promulgated pursuant thereto, N.J.A.C. 7:1E-1 et seq., and are pollutants as defined in the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.,



specifically N.J.S.A. 58:10A-3n, and the regulations promulgated pursuant thereto, N.J.A.C. 7:14A-1.2(c).

4. The Department has determined that chromite ore processing residue from PPG's operations referenced in paragraph 2 above, was distributed by third parties as fill material for use in certain construction and development projects in Hudson County, New Jersey. The chromite ore processing residue was used for the backfilling of demolition sites, preparation for building foundations, construction of tank berms, roadway construction, the filling of wetlands and other construction and development related purposes.

5. The Department has found chromite ore processing residue contamination on the walls and floors of buildings, both interior and exterior, on the surfaces of driveways and parking lots and on the surfaces of unpaved areas at certain locations in Hudson County, New Jersey. These locations include residential lots, active work sites, publicly owned lands, industrial and commercial establishments and other populated and environmentally sensitive areas in Hudson County, New Jersey.

6. The Department has determined that PPG's chromate chemical production facility referenced in paragraph 2 above, and those of Allied-Signal Incorporated (hereinafter "Allied-Signal"), located in the City of Jersey City, and Diamond Shamrock Chemicals Company, (hereinafter "Diamond"), located in the Town of Kearny, were the only chromate chemical production facilities in New Jersey and were the only such facilities within an approximately one-hundred and fifty mile radius of Hudson County. The Department has found no evidence that any of the chromite ore processing residue from facilities outside such radius was deposited in, or was taken to Hudson County.

7. On January 22, 1985, the Department directed PPG, among others, to arrange for the removal of hazardous substances, including chromium and chromium compounds, at forty-two (42) sites in Hudson County, by paying for the Department's costs of a Remedial Investigation and Feasibility Study (hereinafter "RI/FS") at those sites.

8. On or about August 5, 1985, the State of New Jersey awarded a contract to Environmental Science and Engineering, Inc. to implement the RI/FS.

9. On July 22, 1986, PPG and the Department executed an Administrative Consent Order concerning the RI/FS. Pursuant to the Administrative Consent Order, PPG arranged in part for the removal of chromite ore processing residue by agreeing to reimburse the Department for the part of the Department's costs of conducting the RI/FS and PPG participated in the Chromium Sites Study Committee the Department created to oversee and manage the RI/FS.

10. On December 2, 1988, the Department issued a Directive (hereinafter "the December 2, 1988 Directive") to PPG, among others, pursuant to the Spill Act, directing it to undertake interim remedial actions at eighty-six (86) sites in Hudson County, including some of the Residential Sites listed in Attachment Two and the Non-Residential Sites

listed in Attachment One. Each of these attachments are attached hereto and made a part hereof. Except as incorporated herein, the December 2, 1988 Directive remains in full force and effect.

11. In response to the December 2, 1988 Directive identified in paragraph 10 above, PPG agreed to implement interim remedial measures (IRMs) at ten high priority and five medium priority sites. A draft IRM work plan for the ten high priority sites, dated February 14, 1989 prepared pursuant to the December 2, 1988 Directive was submitted by PPG to the Department for Sites numbered 1, 13, 28, 29, 37, 74, 75, 89, 102 and 137 (previously designated as part of site 114). On May 8, 1989 PPG received Department approval of the work plan and began implementation of the IRM at the ten high priority sites. Subsequent to May 8, 1989, PPG agreed to a Department request to perform the IRM at one additional high priority site, (Site 123) consistent with the procedures in the work plan previously approved on May 8, 1989. On October 6, 1989, PPG submitted IRM work plans for Sites 2 (exterior only), 3, 4, 5, and 112. On October 26, 1989, the Department determined that the October 6, 1989 PPG IRM Work Plan was unacceptable. On December 1, 1989, PPG submitted a revised IRM Work Plan to incorporate revisions to the Work Plan. The Department in correspondence dated December 19, 1989 and January 16, 1990 provided conditional acceptance of the work plan. On May 4, and May 9, 1990 PPG submitted draft interior and exterior sampling plans to the Department for Site 114 and Site 137. On May 23, 1990 the Department accepted the sampling plan conditional upon PPG acceptance of certain modifications to which PPG agreed in a June 7, 1990 letter to the Department. On May 11, 1990 PPG submitted draft IRM work plans for sites 2 (interior only), 89 (interior only), and 133 (interior only), which were conditionally accepted on June 13, 1990. All IRM work plans and sampling plans approved by the Department prior to the effective date of this Administrative Consent Order for compliance with the December 2, 1988 Directive shall be deemed approved under this Administrative Consent Order. Similarly, all IRM work plans and sampling plans conditionally approved by the Department prior to the effective date of the Administrative Consent Order for compliance with the December 2, 1988 Directive shall be deemed conditionally approved under this Administrative Consent Order.

12. On May 25, 1989, the Chromium Sites Study Committee reviewed and approved the RI reports which concluded that thirty (30) of the sites studied were confirmed as containing chromite ore processing residue and had chromium concentrations in soil/fill materials and that chromite ore processing residue present adjacent to a building can lead to contamination of both outside and inside surfaces of such buildings.

13. On November 15, 1989, the Chromium Sites Study Committee approved the Feasibility Study Report (hereinafter "FS Report") which identified a number of viable remedial alternatives for the cleanup of chromium contamination from chromite ore processing residue.

14. On December 12, 1989, the Department issued its recommendation for remedial action for the soil remediation at residential sites, in a document entitled "Proposed Plan, Hudson County Chromium, Residential Sites" (hereinafter "the Proposed Plan"). The recommended remedial action included excavation, solidification/stabilization and disposal of chromium contamination in a commercial hazardous waste facility.

15. During December 1989, and January and part of February 1990, the Department solicited public comments on the Proposed Plan by mailing it to interested parties, including PPG, and made the Proposed Plan available for public review at repositories in Hudson County, New Jersey.

16. On April 17, 1990, the Department issued a Record of Decision containing the Department's final decision on the selection of a remedial action for the contaminated Residential Sites, its response to public comments on the Proposed Plan, and a cost estimate for the selected remedial action of twenty-nine million nine hundred thirty-eight thousand dollars (\$29,938,000).

17. On May 16, 1990, the Department issued a Directive (hereinafter "the May 16, 1990 Directive") to PPG pursuant to the Spill Act, directing PPG to arrange for the removal of hazardous substances at the Residential Sites by paying the Department its costs of implementing the remedial action alternative the Department selected in its April 17, 1990 Record of Decision.

18. The Department has determined that chromite ore processing residue has been discharged and is present at each of the sites listed in Attachment One (hereinafter "the Non-Residential Sites") and each of the sites listed in Attachment Two (hereinafter "the Residential Sites"). The Department has determined that the chromite ore processing residue, which contains chromium and its compounds, and other hazardous substances, at the Residential Sites and the Non-Residential Sites, including the Garfield Avenue Site, has been discharged into the waters and/or onto the lands of the State of New Jersey in violation of Section 4 of the Spill Act, N.J.S.A. 58:10-23.11c.

19. The Department has determined that the chromite ore processing residue at the Sites and the Garfield Avenue Site is identifiable by virtue of its chemical and physical characteristics, but is chemically and physically indistinguishable from the chromite ore processing residue generated by Allied-Signal's or Diamond's chromate chemical production facilities referenced above.

20. The Department has determined that uncontrolled discharges of hazardous substances from the chromite ore processing residue at the Sites and the Garfield Avenue Site are within an area of high population density in the State of New Jersey and that the risk of human exposure to chromite ore processing residue at the Sites and the Garfield Avenue Site is ongoing. Chromium and its compounds contained in the chromite ore processing residue, are potentially toxic to humans and may include demonstrated human carcinogens. The Department has determined that these conditions create a substantial risk of imminent danger to human health and the environment.

21. Pursuant to N.J.S.A. 58:10-23.11fa, whenever any hazardous substance is discharged, the Department may, in its discretion, act to remove or arrange for the removal of such discharge or may direct the discharger to remove, or arrange for the removal of, such discharge.

22. The Department has determined that the pollutants referenced in these FINDINGS discharged onto the lands and into the water of the State of New Jersey without a valid New Jersey Pollutant Discharge Elimination System

Permit in violation of the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., specifically N.J.S.A. 58:10A-6.

23. The Department has determined that pursuant to N.J.S.A. 58:10-23.11gc, PPG is strictly liable, jointly and severally, without regard to fault, for all costs of the cleanup and removal of the hazardous substances discharged at the Sites and the Garfield Avenue Site and other locations in Hudson County at which chromite ore processing residue and chromium and its compounds from the Sites and/or the Garfield Avenue Site have been discharged.

24. The Department has determined that the hazardous substances referenced in these FINDINGS have discharged into the waters and onto the lands of the State of New Jersey in violation of the Spill Compensation and Control Act, specifically N.J.S.A. 58:10-23.11c.

25. PPG disagrees with and does not admit the Department's determination of PPG's responsibility for the remediation of the sites described herein. PPG filed a challenge to the Department's Record of Decision on May 31, 1990, reflecting PPG's firmly held belief that the Department's ROD and cleanup levels are scientifically unjustified and that cleanup levels proposed by PPG and the other former chrome manufacturers, which were the result of a significant study effort by recognized experts, are fully protective of human health and the environment. For the same reasons, on July 2, 1990, PPG also challenged the Department's May 16, 1990 residential site cleanup directive to PPG. Although PPG remains convinced of the moral and legal correctness of its position, in order to resolve this matter without the necessity for litigation, and in order to work with the Department to expedite investigation and remediation of chromium contaminated sites in and around Hudson County, PPG has agreed to:

a. Implement the remedy selected by the Department in its April 17, 1990 Record of Decision for the Residential Sites listed in Attachment Two and all other residential sites in Hudson County to be identified, pursuant to this Administrative Consent Order;

b. Implement IRMs, conduct a remedial investigation and a feasibility study, and to design and implement remedial action selected by the Department to remedy the problems associated with the hazardous substances as defined by the Spill Act and pollutants as defined in the Water Pollution Control Act, discharged at the Garfield Avenue Site, emanating from the Garfield Avenue Site, or which have emanated from the Garfield Avenue Site;

c. Implement interim remedial measures and conduct a remedial investigation and a feasibility study, and to design and implement the remedial action selected by the Department to remedy the problems associated with chromite ore processing residue, chromium and its compounds whether or not any other hazardous substances or pollutants are intermingled therewith, at, emanating from or which have emanated from the Non-Residential Sites listed in Attachment One, and all Non-Residential Sites in Hudson County to be identified, pursuant to this Administrative Consent Order;

d. Withdraw all suits that PPG has pending, filed or otherwise commenced against the Department and withdraw PPG's January 23, 1990 petition to the Department;

e. Pay the Department for all its past and subsequent costs incurred in connection with the investigation and response to, the matters described hereinabove, including the costs associated with the preparation of this Administrative Consent Order;

f. Pay the Department for all its past and subsequent costs incurred in connection with implementing IRMs at Residential Sites listed in paragraphs 29 and 30 below; and

g. Pay the Department for all of its costs as set forth in paragraph 31 below in full satisfaction of the Department's August 23, 1989 Spill Act Directive for Non-Residential Site 122.

h. Pay the Department a civil penalty as set forth in paragraph 26 below.

ORDER

NOW THEREFORE IT IS HEREBY ORDERED AND AGREED THAT:

I. Penalties and Reimbursement of Prior Costs

26. PPG agrees to pay to the Department as provided for in this paragraph, a civil penalty of two million five hundred thousand dollars (\$2,500,000.00) for all violations of the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq., and the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., for all discharges of chromate ore processing residue from the Garfield Avenue Site. Within thirty (30) calendar days after the effective date of this Administrative Consent Order, PPG shall pay one million five hundred thousand dollars (\$1,500,000.00), the first of three (3) penalty payments. Within three hundred sixty-five (365) calendar days after the effective date of this Administrative Consent Order, PPG shall pay, five hundred thousand dollars (\$500,000.00), the second of three (3) penalty payments. Within seven hundred thirty (730) calendar days after the effective date of this Administrative Consent Order, PPG shall pay five hundred thousand dollars (\$500,000.00), the third of three (3) penalty payments. If PPG fails to make any of these payments in the time frames specified above, PPG expressly agrees that the Department may withdraw any remaining unpaid penalty payment amounts from the financial assurance established pursuant to paragraph 84 below in accordance with paragraph 85 below. The Department shall not seek, demand, or otherwise claim any civil or civil administrative fines or penalties from, or initiate any action for civil or civil administrative fines or penalties against PPG, its present or former parents, subsidiaries, predecessors or affiliates or the officers, directors, or employees of PPG, their present or former parents, subsidiaries, predecessors or affiliates, or any of them, based upon their alleged acts or omissions (including, without limitation, failure to report), or any continuing releases, migration or discharges of hazardous substances or pollutants, in connection with or arising in any way out of the disposal, discharge, handling, treatment or transportation, occurring

prior to the effective date of this Administrative Consent Order, of hazardous substances or pollutants at or from the Garfield Avenue Site. Although it agrees to pay this civil penalty, PPG denies any violation of statute, rule, regulation or ordinance and payment of this penalty is without admission of fact, fault, liability or obligation. The provisions of this paragraph shall survive any termination of this Administrative Consent Order.

27. Within thirty (30) calendar days after PPG's receipt from the Department of a summary of costs, PPG shall submit the amount of thirty thousand three hundred seventy-six and forty-four cents (\$30,376.44) to the Department as payment for all costs incurred by the Department up until April 6, 1990, in connection with the investigation of, and response to, the matters described in the FINDINGS hereinabove, including the costs associated with the preparation of this Administrative Consent Order.

28. Within thirty (30) calendar days after receipt of a written summary of all additional costs incurred by the Department, in connection with the investigation of, and response to, the matter described in the FINDINGS hereinabove, PPG shall submit to the Department payment of all such costs.

29. Within thirty (30) calendar days after PPG's receipt from the Department of a summary of costs, PPG shall submit the amount of six hundred thirty-six thousand four hundred fifty-two dollars and thirty-two cents (\$636,542.32) to the Department as payment for all costs incurred by the Department in connection with the costs of implementing IRMs at Residential Sites 6, 10, 11, 14, 18, 23, 24, 38, 39, 82 and 85.

30. Within thirty (30) calendar days after receipt of a written summary of all subsequent costs incurred by the Department in performing IRMs at Residential Sites 12, 22, 80, 81, 83, 84, 142 and at 409-411 Halladay Street in Jersey City, PPG shall submit to the Department payment of all such costs.

31. Within thirty (30) calendar days after PPG's receipt from the Department of a summary of costs, PPG shall submit the amount of two hundred fifty-one thousand and five hundred dollars (\$251,500) to the Department as payment in full satisfaction of the Department's August 23, 1989 Spill Act Directive for Non-Residential Site 122.

32. Within thirty (30) calendar days after the effective date of this Administrative Consent Order, as referenced in paragraph 128 below, PPG shall withdraw all suits that PPG has pending, filed or otherwise commenced against the Department and PPG shall withdraw its rule petition of January 23, 1990.

33. Payment of the amounts in paragraphs 26 through 31 above, shall be made by a cashier's or certified check payable to the "Treasurer, State of New Jersey". Payment shall be submitted to the Department contact listed in paragraph 82 below.

II. Interim Remedial Measures

34a. PPG shall complete implementation of all IRMs at the sites on Attachment One pursuant to IRM Work Plans approved by the Department as of the effective date of this Administrative Consent Order.

34b. Within sixty (60) calendar days after the effective date of this Administrative Consent Order, PPG shall submit to the Department a draft IRM Grouping and Scheduling Plan which describes PPG's proposal for the organization of the Non-Residential Sites and the Garfield Avenue Site into groups and the scheduling of those groups for the submission of Interim Remedial Measures Work Plans required by this Administrative Consent Order.

34c. Within five (5) calendar days after PPG's receipt of the Department's written comments on the draft IRM Grouping and Scheduling Plan, PPG shall modify the IRM Grouping and Scheduling Plan to conform to the Department's comments and shall submit the modified IRM Grouping and Scheduling Plan to the Department. The determination as to whether or not the modified IRM Grouping and Scheduling Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable shall be made solely by the Department.

35. Within one hundred and thirty-five (135) calendar days after the effective date of this Administrative Consent Order, PPG shall submit to the Department a detailed draft Interim Remedial Measures Work Plan (hereinafter "IRM Work Plan"), in accordance with the scope of work set forth in Appendix A which is attached hereto and made a part hereof, for the initial group and at thirty day intervals thereafter for the subsequent groups identified in the approved IRM Grouping and Scheduling Plan.

36. Within forty-five (45) calendar days after receipt of the Department's written comments on the draft IRM Work Plan(s) for each group, PPG shall modify the draft IRM Work Plan(s) for each group to conform to the Department's comments and shall submit the modified IRM Work Plan(s) to the Department. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its comments. The determination as to whether or not the modified IRM Work Plan(s), as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

37. Upon receipt of the Department's written final approval of the IRM Work Plan(s) for each group, PPG shall implement the approved IRM Work Plan(s) for each group in accordance with the approved schedule therein. Within thirty (30) calendar days after completion of the interim remedial actions at each site grouping, PPG shall submit to the Department a report detailing the measures taken by PPG to implement the IRM Work Plan(s) for each group, including site map(s) showing the location(s) at the site(s) where such measures were taken.

III. Non-Residential Sites Remedial Investigation and Cleanup

A. Remedial Investigation

38a. Within one hundred and twenty (120) calendar days after the effective date of this Administrative Consent Order, PPG shall submit to the Department a draft Remedial Investigation Grouping and Scheduling Plan which describes PPG's proposal for the organization of the Non-Residential Sites and the Garfield Avenue Site into groups and for the scheduling of those groups for the submission of Remedial Investigation Work Plans required by this Administrative Consent Order.

38b. Within five (5) calendar days after PPG's receipt of the Department's written comments on the draft Remedial Investigation Grouping and Scheduling Plan, PPG shall modify the Remedial Investigations Grouping and Scheduling Plan to conform to the Department's comments and shall submit the modified Remedial Investigation Grouping and Scheduling Plan to the Department. The determination as to whether or not the modified Remedial Investigation Grouping and Scheduling Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable shall be made solely by the Department in writing.

38c. Within two hundred and forty (240) calendar days after the effective date of this Administrative Consent Order, PPG shall submit to the Department a detailed draft Remedial Investigation Work Plan (hereinafter the "RI Work Plan") for the initial group identified in the approved Remedial Investigation Grouping and Scheduling Plan and in accordance with the schedule contained in the approved Remedial Investigation Grouping and Scheduling Plan. All draft RI Work Plans shall be drafted in accordance with the scope of work set forth in Appendices B, C and D, which are attached hereto and made a part hereof.

39. Within forty-five (45) calendar days after PPG's receipt of the Department's written comments on the draft RI Work Plan(s) for each group, PPG shall modify the draft RI Work Plan to conform to the Department's comments and shall submit the modified RI Work Plan(s) to the Department. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its comments. The determination as to whether or not the modified RI Work Plan(s), as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

40. Upon PPG's receipt of the Department's written approval of the RI Work Plan(s) for each group, PPG shall conduct the remedial investigation in accordance with the approved RI Work Plan(s) and the schedule(s) therein.

41. PPG shall submit to the Department draft Remedial Investigation Report(s) (hereinafter "RI Report") for each group identified in the approved Remedial Investigation Grouping and Scheduling Plan in accordance

with the approved RI Work Plan developed in accordance with Appendix B, and the schedule therein.

42. If upon review of any draft RI Report(s) the Department determines that additional remedial investigation is required, PPG shall conduct such additional remedial investigation pursuant to Appendix B, as required by the Department in writing and submit supplemental draft RI Report(s).

43. Within forty-five (45) calendar days after PPG's receipt of the Department's written comments on each draft or second draft (if applicable pursuant to the preceding paragraph) RI Report, PPG shall modify the draft or second draft RI Report to conform to the Department's comments and shall submit the modified RI Report to the Department. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its comments. The determination as to whether or not the modified RI Report, as resubmitted, conforms with the Department's comments and is otherwise acceptable by the Department shall be made solely by the Department in writing.

B. Feasibility Study

44. Within one-hundred and eighty (180) calendar days after PPG's receipt of either the Department's written final approval of any RI Report, or the Department's written notice to proceed, PPG shall submit to the Department a detailed draft Feasibility Study Work Plan (hereinafter, "FS Work Plan") for the site(s) which is (are) the subject of the approved RI Report or notice to proceed in accordance with the scope of work set forth in Appendix E, which is attached hereto and made a part hereof.

45. Within forty-five (45) calendar days after PPG's receipt of the Department's written comments on any draft FS Work Plan, PPG shall modify the draft FS Work Plan to conform to the Department's comments and shall submit the modified FS Work Plan to the Department. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its comments. The determination as to whether or not the modified FS Work Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

46. Upon PPG's receipt of the Department's written approval of any FS Work Plan, PPG shall conduct the feasibility study which is the subject of said approval in accordance with the approved FS Work Plan and the schedule therein.

47. PPG shall submit to the Department a draft Feasibility Study Report (hereinafter "FS Report") for the site(s) for which the Department has given written approval of the FS Work Plan in accordance with Section III of Appendix E and the approved FS Work Plan developed in accordance with Appendix E, and the schedule therein.

48. Within forty-five (45) calendar days after PPG's receipt of the Department's written comments on any draft FS Report, PPG shall modify the draft FS Report to conform to the Department's comments and shall submit the modified FS Report to the Department. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its comments. The determination as to whether or not the modified FS Report, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

C. Remedial Action

49. The Department will make each selection of the remedial action alternative based upon any final FS Report submitted in accordance with paragraph 48 above, and on the criteria set forth in Appendix E, Section I.D. If PPG fails to submit any final FS Report in compliance with paragraph 48 above, then the Department will make selection of remedial action alternative(s) based on the criteria set forth in Appendix E, Section I.D.

50. Within one hundred and twenty (120) calendar days after PPG's receipt of the Department's written notification of its selection of any remedial action alternative(s), PPG shall submit to the Department a detailed draft Remedial Action Plan for those sites which are the subject of the Department's notification in accordance with the scope of work set forth in Appendix F, which is attached hereto and made a part hereof. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG disagrees with the Department's selected remedial action alternative(s). Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its selection of the remedial action alternative(s). If the Department has determined that more than one alternative for the Garfield Avenue Site and/or one or more of the Non-Residential Sites meets the criteria set forth in Appendix E, Section I.D., PPG may decide which of these alternatives it will implement.

51. Within ninety (90) calendar days after PPG's receipt of the Department's written comments on any draft Remedial Action Plan, PPG shall modify the draft Remedial Action Plan to conform to the Department's comments and shall submit the modified Remedial Action Plan to the Department. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its comments. The determination as to whether or not the modified Remedial Action Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

52. In accordance with the schedule contained in each approved Remedial Action Plans referenced in paragraph 51 above, PPG shall submit to the Department detailed engineering design(s) and cost estimate(s) for the selected remedial action alternative(s).

53. Within ninety (90) calendar days after PPG's receipt of the Department's written comments on the detailed engineering design(s) and cost estimate(s), PPG shall modify the detailed engineering design and cost estimates to conform to the Department's comments and shall submit the modified detailed engineering design and cost estimates to the Department. Within this timeframe, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss its comments. The determination as to whether or not the modified detailed engineering design and cost estimates as resubmitted, conform to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

54. Upon PPG's receipt of the Department's written approval of any detailed design specifications and cost estimates, PPG shall implement the approved Remedial Action Alternative(s) which is (are) the subject of said approval in accordance with the schedule therein and in accordance with the approved detailed engineering design.

D. Additional Remedial Investigation and Remedial Action

55. If at any time prior to PPG's receipt of written notice from the Department pursuant to paragraph 134 below the Department determines that the criteria set forth in Appendix E, Section I.D. for Non-Residential Sites are not being achieved, or that additional remedial investigation and/or remedial action is required to protect human health or the environment from any chromite ore processing residue, chromium and its compounds, whether or not any hazardous substances or pollutants are intermingled therewith, at, emanating from or which have emanated from the Sites, PPG shall conduct such additional activities as directed by the Department and in accordance with this Administrative Consent Order. If at any time prior to PPG's receipt of written notice from the Department pursuant to paragraph 134 below the Department determines that the criteria set forth in Appendix E, Section I.D. for Non-Residential Sites are not being achieved, or that additional remedial investigation and/or remedial action is required to protect human health or the environment from any hazardous substances and pollutants at, emanating from or which have emanated from the Garfield Avenue Site, PPG shall conduct such additional activities as directed by the Department in accordance with this Administrative Consent Order.

E. Additional Sites

56. For each additional site, identified by the Department, contaminated with chromite ore processing residue and chromium and its compounds from the Garfield Avenue Site, or which is adjacent to the Garfield Avenue Site or any of the Non-Residential Sites, and is contaminated by chromite ore processing residue, chromium and its compounds, emanating or which has emanated from the Garfield Avenue Site or any of the Non-Residential Sites, PPG shall conduct, in accordance with the provisions of this Administrative Consent Order for such Non-Residential Sites interim remedial measures and a RI/FS, and shall design and implement a remedial action to remedy the problem associated with the chromite ore processing

residue, chromium and its compounds whether or not any hazardous substances or pollutants are intermingled therewith.

57. PPG shall conduct for such Non-Residential Sites, in accordance with the provisions of this Administrative Consent Order, interim remedial measures and delineation and remediation of chromite ore processing residue, chromium and its compounds whether or not any hazardous substances or pollutants are intermingled therewith.

58. Upon PPG's receipt of written notice from the Department of the existence of any additional Non-Residential Site or Non-Residential Sites identified pursuant to paragraphs 56 and 57 above, PPG shall undertake the obligations set forth in paragraphs 34 through 55, above, regarding such additional Non-Residential Site or Non-Residential Sites and in accordance with the time periods set forth therein.

IV. Remedial Action for Residential Sites

A. Site Specific Delineation

59. PPG shall design and implement the remedial action for the Residential Sites which the Department selected in its April 17, 1990 Record of Decision (hereinafter the "ROD"), in accordance with the paragraphs 60 through 71 below.

59a. Within sixty (60) days after the effective date of this Administrative Consent Order, PPG shall submit a written Residential Sites Grouping and Scheduling Plan which describes PPG's proposal for the organization of the Residential Sites into groups and for the scheduling of those groups for the remedial actions to be performed by PPG pursuant to this Administrative Consent Order. PPG shall include in the Residential Sites Grouping and Scheduling Plan a detailed schedule of each of the remedial activities called for in paragraphs 60 through 71, inclusive, (including the submission, revision and implementation of FSP-QAPPs in accordance with Appendix J, submission and revision of Preliminary Designs and the submission, revision and implementation of Final Designs in accordance with Appendices K and L) for each of the groups of sites identified and provide both graphical and narrative descriptions of the scheduling of those activities and their chronological relationship. PPG shall draft the schedule submitted in the Residential Sites Grouping and Scheduling Plan to provide for completion of all remedial actions called for in paragraphs 60 through 71 inclusive at each of the Residential Sites within eight hundred (800) days after the effective date of this Administrative Consent Order.

59b. Within five (5) calendar days after PPG's receipt of the Department's written comments on the Residential Sites Grouping and Scheduling Plan, PPG shall modify the Residential Sites Grouping and Scheduling Plan to conform to the Department's comments and shall submit the modified Grouping and Scheduling Plan to the Department. The determination as to whether or not the modified Residential Sites Grouping and Scheduling Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable shall be made solely by the Department in writing.

59c. As part of the Residential Sites Grouping and Scheduling Plan, PPG may petition the Department to allow Preliminary and Final Designs described herein below, to be submitted concurrently with the FSP-QAPPs for those Residential Sites where only a minimal amount of additional delineation may be required and where such delineation can be effectively carried out concurrently with removal of chromium contamination from the site. The petition must be submitted by PPG in writing to the Department. The determination as to whether or not the petition is granted shall be made solely by the Department in writing.

59d. All reports, plans or other submissions required in paragraphs 59 through 72 of this Administrative Consent Order shall be submitted for the groups designated in the Residential Sites Grouping and Scheduling Plan.

60. Within ninety (90) calendar days after the effective date of this Administrative Consent Order, PPG shall submit to the Department a detailed draft Field Sampling Plan - Quality Assurance Project Plan (hereinafter the "FSP-QAPP") for the initial group of sites identified within the approved Residential Sites Grouping and Scheduling Plan and for all other groups in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan. PPG shall prepare each FSP-QAPP in accordance with Appendix J which is attached hereto and made a part hereof.

61. PPG shall modify each draft FSP-QAPP to conform to the Department's comments and shall submit each modified FSP-QAPP to the Department in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan. The determination as to whether or not the modified FSP-QAPP, as resubmitted, conforms to the Department's comments and is otherwise acceptable shall be made solely by the Department in writing.

62. PPG shall complete the implementation of the FSP-QAPP in accordance with the approved FSP-QAPP and the approved Residential Sites Grouping and Scheduling Plan.

63. PPG shall submit to the Department draft Field Sampling Reports containing data and documentation required in Appendix J and the approved FSP-QAPP in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan.

64. If upon review of any draft Field Sampling Report, the Department determines that additional site specific sampling is required, PPG shall conduct such additional site specific sampling as required by the Department in writing and submit a supplemental Field Sampling Report.

65. PPG shall modify each draft or supplemental draft Field Sampling Report to conform to the Department's comments and shall submit a modified Field Sampling Report to the Department in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan or in accordance with a schedule otherwise specified by the Department. The determination as to whether or not any modified Field Sampling Report as resubmitted, conforms with the Department's comments and is otherwise acceptable shall be made solely by the Department in writing.

B. Preliminary Design

66. PPG shall submit to the Department a draft Preliminary Design for each group of sites for which the Field Sampling Report has been approved in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan and in accordance with Appendix K, including: a) the Preliminary Design Report; b) Construction Operations Plan; c) Preliminary Engineering Plans; d) Specifications; and e) Permit documents.

67. PPG shall modify each draft Preliminary Design to conform to the Department's comments and shall submit the modified Preliminary Design to the Department in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan. The determination as to whether or not the modified Preliminary Design, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

C. Final Design

68. PPG shall submit to the Department a draft Final Design for the group of sites for which the Preliminary Design has been approved and in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan and in accordance with Appendix K, including: a) the Final Design Report; b) Final Engineering Design and Construction Drawings; c) Final Construction Specifications; d) Final Construction Operations Plan; and e) Specifications.

69. PPG shall modify each draft Final Design to conform to the Department's comments and shall submit the modified Final Design to the Department in accordance with the schedule contained in the approved Residential Sites Grouping and Scheduling Plan. The determination as to whether or not the modified Final Design, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

D. Construction

70. Within fifteen (15) calendar days after PPG's receipt of the Department's written approval of any Final Design, PPG shall submit a schedule for implementation of the Final Design for the group of sites for which the Final Design has been approved. The schedule shall provide for completion of the implementation of the Final Design in accordance with the approved Residential Sites Grouping and Scheduling Plan and specify the groupings and order of implementation for each of the Residential Sites.

71. PPG shall complete implementation of each Final Design in accordance with the approved schedule and all the requirements of Appendix L.

E. Additional Residential Sites

72. For each additional Residential Site, identified by the Department, contaminated with chromite ore processing residue and chromium and its compounds from the Garfield Avenue Site, or which is adjacent to the Garfield Avenue Site, a Non-Residential Site or a Residential Site, and is

contaminated by chromite ore processing residue, chromium and its compounds, emanating or which has emanated from Garfield Avenue Site, or any of the Non-Residential or Residential Sites or which is adjacent to the Garfield Avenue Site or any of the Non-Residential or Residential Sites, PPG shall conduct, in accordance with the provisions of this Administrative Consent Order, interim remedial measures and the remedial action the Department selected in the ROD for the Residential Sites, to remedy the problem associated with the chromite ore processing residue, chromium and its compounds whether or not any hazardous substances or pollutants are intermingled therewith. Upon PPG's receipt of written notice from the Department of the existence of any additional Residential Site(s) identified pursuant to the preceding paragraph, PPG shall undertake the obligations set forth in paragraph 59 through 71 above, regarding such additional site(s) and in accordance with the time periods set forth therein.

F. Additional Remedial Investigation and Remedial Action for Residential Sites

73. If at any time prior to PPG's receipt of written notice from the Department pursuant to paragraph 134 below the Department determines that additional remedial investigation and/or remedial action is required to protect human health or the environment from any chromite ore processing residue, chromium and its compounds, whether or not any hazardous substances or pollutants are intermingled therewith, at, emanating from or which have emanated from the Residential Sites including but not limited to the groundwater migration route, PPG shall conduct such additional activities as directed by the Department.

V. Progress Reports

74. PPG shall submit to the Department quarterly progress reports; the first progress report shall be submitted on or before the thirtieth (30th) calendar day of the month following the first full quarter after the effective date of this Administrative Consent Order. Each progress report thereafter shall be submitted on or before the thirtieth (30th) calendar day of the month following the quarter being reported. Each progress report shall detail the status of PPG's compliance with this Administrative Consent Order and shall:

- a. Identify the site grouping and refer to this Administrative Consent Order, including signatory parties and effective date;
- b. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) which were initiated during the reporting period;
- c. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) which were initiated in a previous reporting period, which are still in progress and which will continue to be carried out during the next reporting period;

- d. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) which were completed during the reporting period;
- e. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph numbers or schedule) which should have been completed during the scheduled reporting period and were not;
- f. Explain any potential non-compliance with any approved work plan(s), schedule(s) or Remedial Action Plan(s), and actions taken or to be taken to rectify any scheduled requirement not achieved; and
- g. Identify the specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) that will be initiated during the next reporting period.

VI. Permits

75. This Administrative Consent Order shall not be construed to be a permit or in lieu of a permit for future activities which require permits and it shall not relieve PPG from obtaining and complying with all applicable Federal, State and local permits necessary for any future activities which PPG must perform pursuant to this Administrative Consent Order.

76. PPG shall submit complete applications for all Federal, State and local permits required to carry out its obligations under this Administrative Consent Order in accordance with the approved time schedules.

77. Within forty-five (45) calendar days after PPG's receipt of written comments from the permitting agency concerning any permit application to a Federal, State or local agency, or within a time period extended in writing by the Department, PPG shall modify the permit application to conform to the permitting agency's comments and resubmit the permit application to the agency. Within this timeframe for a Departmental permit, PPG may explain verbally or in writing to the Department, the reason(s) why PPG believes the Department's comments should not be incorporated. Representatives of the Department may meet with representatives of PPG within this timeframe to discuss PPG's comments. The determination as to whether or not the permit application, as resubmitted, conforms with the agency's comments or is otherwise acceptable to the agency shall be made solely by the agency in writing.

78. The terms and conditions of any Federal, State or local permit or permit modification issued to PPG shall not be preempted by the terms and conditions of this Administrative Consent Order even if the terms and conditions of any such permit or permit modification are more stringent than the terms and conditions of this Administrative Consent Order. To the extent that the terms and conditions of any such permit or permit modification are substantially equivalent to the terms and conditions of this Administrative Consent Order, PPG hereby waives any rights it may have

to a hearing on such terms and conditions; under all other circumstances, such hearing rights are specifically preserved.

79. PPG shall be responsible for obtaining all necessary Federal, State and local permits, licenses and other authorizations for existing or former activities at the Garfield Avenue Site necessary for compliance with this Administrative Consent Order. This Administrative Consent Order shall not be construed to be a permit or permit modification for existing or former activities which require permits or permit modifications, nor shall it preclude the Department from requiring that PPG apply for such permit or permit modification.

VII. Project Coordination

80. PPG shall submit to the Department all documents required by this Administrative Consent Order, including correspondence relating to force majeure issues, by certified mail, return receipt requested or by hand delivery with an acknowledgement of receipt form for the Department's signature. The date that the Department executes the receipt or acknowledgement will be the date the Department uses to determine PPG's compliance with the requirements of this Administrative Consent Order and the applicability of stipulated penalties and any other remedies available to the Department.

81. The following individual shall be the PPG contact for the Department for all matters concerning this Administrative Consent Order, and shall be the agent for the purpose of service for all matters concerning this Administrative Consent Order:

Leonard S. Bryant
Manager, Environmental Projects
Chemicals Group
PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
(412) 434-2811

82. PPG shall submit three (3) copies of all documents required by this Administrative Consent Order, unless otherwise directed by the Department, to:

Tom McKee, Section Chief
New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Responsible Party Cleanup Element, 5th Floor
CN-028
401 East State Street
Trenton, New Jersey 08625-0028

83. PPG shall notify, both verbally and in writing, the contact person listed above at least two weeks prior to the initiation of any field activities, other than IRM field activities, and 48 hours prior to initiation of any IRM field activities.

VIII. Financial Assurance Requirements

84. PPG shall submit to the Department as provided in this paragraph, financial assurance for the work to be performed pursuant to this Administrative Consent Order of eighty million dollars (\$80,000,000.00). PPG shall within ten (10) business days after the effective date of this Administrative Consent Order, provide a total of forty million dollars (\$40,000,000.00), of which ten million dollars (\$10,000,000.00) will be in the form of either an irrevocable letter of credit or performance bond designated for the Non-Residential sites, and thirty million dollars (\$30,000,000.00) will be in the form of either an irrevocable letter of credit or performance bond designated for the Residential Sites. Within three hundred sixty five (365) calendar days after the effective date of this Administrative Consent Order, PPG shall modify the irrevocable letter of credit or performance bond described above for the Non-Residential Sites to provide a total of twenty-five million dollars (\$25,000,000.00). Within seven hundred thirty (730) calendar days after the effective date of this Administrative Consent Order, PPG shall modify the irrevocable letter of credit or performance bond described above for the Non-Residential Sites to provide a total of fifty million dollars (\$50,000,000.00). Within three (3) business day after the execution of this Administrative Consent Order, PPG shall establish two (2) irrevocable standby trust funds, one (1) for the Residential Sites financial assurance and one (1) for the Non-Residential Sites financial assurance, each with an initial deposit of One Thousand Dollars (\$1,000) or an amount required by the issuing institution. The irrevocable letter(s) of credit, the performance bond(s), and the Standby Trusts shall meet the following requirements:

i. Irrevocable Letter of Credit

- a. Is identical to the wording specified in Appendix G for letters of credit, which is attached hereto and made a part hereof;
- b. Is issued by a Federally chartered bank, savings bank, or New Jersey State chartered bank, savings bank, or savings and loan association, which has its principal office in New Jersey; and
- c. Is accompanied by a letter from PPG referring to the letter of credit by number, issuing institution and date and providing the following information: the name and address of the facility and/or site which is the subject of the Administrative Consent Order and the amount of funds securing the PPG's performance of all its obligations under the Administrative Consent Order.

ii. Performance Bond

- a. Is identical to the wording specified in Appendix G for performance bonds, which is attached hereto and made a part hereof;
- b. The surety company issuing the performance bond shall be among those listed as acceptable sureties on Federal bonds in the most recent version of Circular 570 issued by the U.S. Department of the Treasury, which is published annually on July 1 in the Federal Register; and

- c. Is accompanied by a letter from PPG referring to the performance bond by number, issuing institution and date and providing the following information: the name and address of the facility and/or site which is the subject of the Administrative Consent Order and the amount of funds securing PPG's performance of all its obligations under the Administrative Consent Order.

iii. Standby Trust

- a. Is identical to the wording specified in Appendix H, which is attached hereto and made a part hereof;
- b. At the discretion of the Department, the irrevocable standby trust fund shall be the depository for all funds paid pursuant to a draft by the Department against the letter of credit or payments made under the performance bond as directed by the Department;
- c. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or New Jersey agency; and
- d. Is accompanied by an executed certification of acknowledgement that is identical to the wording specified in Appendix H.

85. PPG shall establish and maintain each of the standby trust funds until terminated by the written agreement of the Department, the trustee and PPG, or of the trustee and the Department if PPG ceases to exist. PPG shall maintain each of the letter(s) of credit or performance bond(s) until the Department provides written notification to PPG that the financial assurance is no longer required for compliance with this Administrative Consent Order. In the event that the Department determines that PPG has failed to perform any of its obligations under this Administrative Consent Order, the Department may proceed to have the financial assurance deposited into the standby trusts; provided, however, that before the Department takes this action, the Department shall notify PPG in writing of the obligation(s) which it has not performed, and PPG shall have thirty (30) calendar days after receipt of such notice, unless extended in writing by the Department, to remedy the failure to perform such obligation(s). In the event that the Department draws down on PPG's letter(s) of credit or performance bond(s) or other financial assurance, it is agreed that nothing in this Administrative Consent Order shall preclude the PPG from exercising whatever rights it may have, if any, to challenge the Department's action as provided for in paragraph 109 below.

86. At any time, PPG may apply to the Department to substitute other financial assurances in a form, manner and amount acceptable to the Department.

87. PPG agrees that for the purposes of complying with the financial assurance requirements of this Administrative Consent Order, PPG shall select a financial institution or surety, and a trustee, that shall agree in writing to be subject to the jurisdiction of New Jersey courts for all claims made by the Department against the financial assurance.

B. Further Financial Assurance

88. No further financial assurance shall be required of PPG under this Administrative Consent Order. However, PPG hereby expressly agrees that the financial assurance as provided for above, is not a limit on spending or liability.

C. Project Cost Review

89. Beginning three hundred sixty-five (365) calendar days after the effective date of this Administrative Consent Order and annually thereafter on that same calendar day, PPG shall submit to the Department a detailed review of all costs required for PPG compliance with this Administrative Consent Order.

90. PPG shall also submit a detailed cost review within fourteen (14) calendar days after its award of a contract or contract modification for the implementation of the remedial alternate for the Garfield Avenue Site and each of the Non-Residential and Residential Sites.

91. The project cost review referenced in the two preceding paragraphs shall include a detailed summary of all monies spent to date pursuant to this Administrative Consent Order for such site, the estimated cost of all future expenditures required to comply with this Administrative Consent Order (including any operation and maintenance costs) for such site, and the reason for any changes from the previous cost review submitted by PPG for the Garfield Avenue Site and each of the Non-Residential and Residential Sites.

92. Simultaneous with the submission of any cost review required above, PPG may request the Department's approval to reduce the amount of the financial assurance to reflect the remaining costs of performing its obligations under this Administrative Consent Order.

93. Upon PPG's receipt of the Department's written response to PPG's request, PPG shall either maintain compliance with the then existing financial assurance requirement or amend the financial assurance in accordance with the Department's written response. If the Department grants written approval of PPG's cost review request, PPG may amend the amount of the then existing financial assurance so that it is equal to or greater than the estimated remaining costs of performing the obligations required by this Administrative Consent Order.

D. Oversight Cost Reimbursement

94. Within thirty (30) calendar days after PPG's receipt from the Department of a summary of the costs, including cost documentation that verifies that the claimed costs were incurred and that the amount of the costs was properly calculated, and will include the amount, date, entity or person to whom the costs were paid or by whom the costs were incurred in connection with its oversight functions of this Administrative Consent Order for a fiscal year, or any part thereof, PPG shall submit to the Department a cashier's or certified check payable to the "Treasurer, State of New Jersey" for the full amount of the Department's oversight costs.

E. Stipulated Penalties

95. Within thirty (30) calendar days after PPG's receipt of a written demand made by the Department, PPG shall pay stipulated penalties to the Department for PPG's failure to comply with any of the deadlines or schedules applicable to it and required by this Administrative Consent Order including those established and approved by the Department in writing pursuant to this Administrative Consent Order. Each deadline or schedule not complied with shall be considered a separate violation and stipulated penalties shall begin to accrue on the first calendar day following the day that performance is due or noncompliance accrue and shall continue to accrue through the final day of correction of the non-compliance. The Department may determine that a submittal of insufficient quality constitutes a non-compliance. Stipulated penalties for such violations shall only accrue for sixty (60) calendar days unless the Department provides PPG written notice that stipulated penalties continue to accrue from the date of receipt by PPG until PPG corrects the non-compliance. Interest shall accrue on any unpaid stipulated penalties commencing on the first day following the end of the thirty (30) day pay period. The interest rate shall be that rate set forth in the New Jersey Court Rules, R. 4:42-11(a)i. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Administrative Consent Order. In addition, failure to pay a stipulated penalty on time shall be an additional violation of this Administrative Consent Order subject to stipulated penalties.

96. PPG's payment of stipulated penalties for PPG's failure to comply with the deadlines and schedules associated Remedial Action for Residential Sites required by this Administrative Consent Order, as identified below, shall be made according to the following schedule, unless the Department has modified the compliance date pursuant to the force majeure provisions set forth herein:

| <u>Calendar Days for Due Date</u> | <u>Stipulated Penalties for Residential Sites</u> |
|-----------------------------------|---|
| 1 - 7 | \$ 2,000 per calendar day |
| 8 - 14 | \$ 4,000 per calendar day |
| 15 - 21 | \$ 6,000 per calendar day |
| 22 - 28 | \$ 10,000 per calendar day |
| 29 - over | \$ 20,000 per calendar day |

97. PPG's payment of stipulated penalties for PPG's failure to comply with the deadlines and schedules associated with the major deliverables and tasks for the Garfield Avenue Site, and the Non-Residential Sites required by this Administrative Consent Order, as identified below, shall be made according to the following schedule, unless the Department has modified the compliance date pursuant to the force majeure provisions set forth herein:

Major Deliverables and Tasks

- timely delivery of all draft and final workplans
- timely delivery of all draft and final reports and designs

- performance of remedial activities including interim remedial measures
- implementation of all approved workplans
- compliance with financial assurance requirements
- payments of penalty settlements and timely reimbursement of prior costs
- timely payment of oversight costs

Calendar Days After Due DateStipulated Penalties for
Non-Residential Sites and
Garfield Avenue Site

| | |
|-----------|----------------------------|
| 1 - 7 | \$ 1,000 per calendar day |
| 8 - 14 | \$ 2,000 per calendar day |
| 15 - 21 | \$ 3,000 per calendar day |
| 22 - 28 | \$ 5,000 per calendar day |
| 29 - over | \$ 10,000 per calendar day |

98. Payment of stipulated penalties for all violations for the Garfield Avenue Site and Non-Residential Sites other than set out in paragraph 97 above, shall be made according to the following schedule unless the Department has modified the compliance date pursuant to the force majeure provisions set forth herein:

Calendar Days After Due DateStipulated Penalties for
Non-Residential Sites and
Garfield Avenue Site

| | |
|-----------|---------------------------|
| 1 - 7 | \$ 100 per calendar day |
| 8 - 14 | \$ 500 per calendar day |
| 15 - 21 | \$ 1,000 per calendar day |
| 22 - 28 | \$ 2,500 per calendar day |
| 29 - over | \$ 5,000 per calendar day |

99. Payment of stipulated penalties shall be made by a cashier's or certified check payable to the "Treasurer, State of New Jersey" and shall be accompanied by a letter referencing this Administrative Consent Order and the alleged violations for which the penalty is submitted.

100. PPG agrees that it shall not seek to take as a tax deduction any payments submitted pursuant to the above paragraphs.

101. PPG's failure to pay stipulated penalties pursuant to a written demand issued by the Department in accordance with paragraphs 95 thru 98 above, shall constitute a violation of this Administrative Consent Order.

102. The payment of stipulated penalties does not alter the responsibility of PPG to complete any requirement of this Administrative Consent Order.

IX. Force Majeure

103. If any event as specified in the following paragraph occurs which PPG believes or should believe will or may cause delay in the compliance with any provision of this Administrative Consent Order, PPG shall notify the Department in writing within seven (7) calendar days of the delay or anticipated delay, as appropriate, referencing this paragraph and describing the anticipated length of the delay, the precise cause or causes of the delay, any measures taken or to be taken to minimize the delay, and the time required to take any such measures to minimize the delay. PPG shall take all necessary action to prevent or minimize any such delay.

104. If the Department finds that: (i) PPG has complied with the notice requirements of the preceding paragraph; (ii) any delay or anticipated delay has been or will be caused by fire, flood, riot, strike or other circumstances beyond the control of PPG; and, (iii) PPG has taken all actions that were reasonably necessary to prevent or minimize any such delay, the Department shall extend the time for performance hereunder for a period no longer than the delay resulting from such circumstances. If the Department determines that (a) PPG has not complied with the notice requirements of the preceding paragraph; (b) the event causing the delay is not beyond the control of PPG; or (c) PPG has not taken all necessary actions that were reasonable to prevent or minimize the delay, this paragraph shall not be applicable and failure to comply with the provisions of this Administrative Consent Order shall constitute a breach of the requirements of this Administrative Consent Order. The burden of proving that any delay is caused by circumstances beyond the control of PPG and the length of any such delay attributable to those circumstances shall rest with PPG. Delay in an interim requirement shall not automatically constitute force majeure with respect to the attainment of subsequent requirements. Force majeure shall not include the following: nonattainment of the goals, standards, guidelines and requirements set forth in the appendices attached hereto or otherwise applicable to the site; increases in the costs or expenses incurred by PPG in fulfilling the requirements of this Administrative Consent Order; and, contractor's breach, unless such breach falls within the requirements of (i), (ii) and (iii) of this paragraph.

X. Reservation of Rights

105. The Department reserves the right to unilaterally terminate this Administrative Consent Order in the event PPG violates the terms or fails to meet the obligations of this Administrative Consent Order.

106. Except as provided for in paragraph 26 above, nothing in this Administrative Consent Order shall preclude the Department from seeking civil or administrative penalties or any other legal or equitable relief against PPG for matters not set forth in the FINDINGS of this Administrative Consent Order.

107. This Administrative Consent Order shall not be construed to affect or waive the claims of federal or State natural resource trustees

against any party for damages or injury to, destruction of, or loss of natural resources.

108. The Department reserves the right to require PPG to take or arrange for the taking of, any and all additional measures should the Department determine that such actions are necessary to protect human health or the environment. Nothing in this Administrative Consent Order shall constitute a waiver of any statutory or common law right of the Department to require PPG to undertake such additional measures should the Department determine that such measures are necessary; nor shall anything in this Administrative Consent Order constitute a waiver by PPG of any statutory or common law defenses, if any, to any attempted action by the Department as to such additional measures.

109. Nothing in this Administrative Consent Order, including PPG's payment of stipulated penalties, shall preclude the Department from seeking civil or civil administrative penalties or any other legal or equitable relief against PPG for violations of this Administrative Consent Order. In any action brought by the Department under this Administrative Consent Order, PPG may raise, inter alia, a defense that PPG failed to comply with a decision of the Department, made pursuant to this Administrative Consent Order, on the basis that the Department's decision was arbitrary, capricious or unreasonable. If PPG is successful in establishing such a defense, then PPG shall not be liable for stipulated penalties for failure to comply with that particular Department decision. Similarly, in the event that PPG prevails in any proceeding in which PPG alleges that the Department acted arbitrarily, capriciously or unreasonably in exercising its right under paragraph 85, above, to draw on the financial assurance, the Department agrees to refund, to the account of the financial assurance, the funds so drawn relative to the contested enforcement action. This provision shall not be construed to provide for reimbursement of the account of the financial assurance for monies drawn for any activity other than that which is the subject of the contested enforcement proceeding in which PPG prevails. PPG shall not seek pre-enforcement review of any decision made or to be made by the Department pursuant to this Administrative Consent Order. Without otherwise affecting any rights which the PPG may have, it is agreed that nothing in this Administrative Consent Order shall preclude PPG from exercising whatever rights it may have, if any, to challenge any determination by the Department which results in the draw down by the Department of PPG's financial assurance under paragraph 85 above, after correction by the Department of the alleged violation(s) which led the Department to draw down the financial assurance and to use such monies to correct the alleged violation(s).

XI. General Provisions

110. This Administrative Consent Order shall be binding on PPG's respective agents, successors, assignees and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.

111. PPG shall perform all work conducted pursuant to this Administrative Consent Order in accordance with prevailing professional standards.

112. All site operations shall be conducted by PPG in accordance with the Health and Safety plan developed as set forth in Appendix B. All site activities shall be conducted in accordance with all general industry (29 CFR 1910) and construction (29 CFR 1926) standards of the federal Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, as well as any other State or municipal codes or ordinances that may apply. PPG shall comply with those requirements set forth in OSHA's final rule entitled "Hazardous Waste Operations and Emergency Response", Section 1910.120 of Subpart H of 29 CFR (published March 6, 1989, Volume 54, Number 42, Federal Register).

113. In accordance with N.J.S.A. 45:8-45, all plans or specifications involving professional engineering, submitted pursuant to this Administrative Consent Order, shall be submitted affixed with the seal of a professional engineer licensed pursuant to the provisions of N.J.S.A. 45:8-1 et seq.

114. All appendices referenced in this Administrative Consent Order, as well as all reports, work plans and documents required under the terms of this Administrative Consent Order that have received approval from the Department, are incorporated into and made a part of this Administrative Consent Order.

115. Each field activity to be conducted pursuant to this Administrative Consent Order shall be coordinated by an on-site professional(s) with experience relative to the particular activity being conducted at the site each day, such as experience in the area of hydrogeology, geology, environmental controls, risk analysis, health and safety or soils.

116. Upon the receipt of a written request from the Department, PPG shall submit to the Department all data and information developed pursuant to this Administrative Consent Order in PPG's possession or control, or which PPG can reasonably bring under their control, concerning pollution at and/or emanating from the Garfield Avenue Site or the Non-Residential Sites or the Residential Sites, or which has emanated from the Garfield Avenue Site and the Non-Residential Sites or the Residential Sites, including raw sampling and monitoring data, whether or not such data and information was developed pursuant to this Administrative Consent Order. PPG reserves whatever rights if any, to assert a privilege regarding such documents.

117. PPG shall make available to the Department all technical records and contractual documents maintained or created by PPG or its agents in connection with this Administrative Consent Order. PPG reserves whatever rights if any, to assert a privilege regarding such documents. The Department shall hold confidential the commercial terms, including rates and payment terms, of any contractual documents made available pursuant to this paragraph; and PPG may delete such commercial terms from any copies supplied to the Department.

118. Except as provided for in the previous paragraph, in order to assert a claim of confidentiality or privilege for any information submitted

by the PPG pursuant to this Administrative Consent Order, PPG asserting such a claim PPG shall follow the Department's procedures in N.J.A.C. 7:14A-11.

119. PPG shall preserve, during the pendency of this Administrative Consent Order and for a minimum of six (6) years after its termination, all data, records and documents in its possession or in the possession of its divisions, employees, agents, accountants, contractors, or attorneys which relate in any way to the implementation of work under this Administrative Consent Order, despite any document retention policy to the contrary. After this six (6) year period, PPG may make a written request to the Department to discard any such documents. Such a request shall be accompanied by a description of the documents involved. The Department will respond in writing to PPG within ninety (90) calendar days after such request, as to its determination and with the specific basis for any denial. Upon written approval by the Department, PPG may discard only those documents that the Department specifically determines are not required to be preserved for a longer time period. Upon receipt of a written request by the Department, PPG shall submit to the Department all records or copies of any such records. PPG reserves whatever rights if any, to assert a privilege regarding such documents. In any event PPG may deliver to the Department any or all records required to be kept longer than six (6) years.

120. Except as provided otherwise in schedules expressly set forth in this Administrative Consent Order or in approved workplans hereunder, upon a written request from the Department, PPG shall submit, according to a time schedule established by the Department, any information necessary for the implementation of this Administrative Consent Order. PPG reserves whatever rights if any, to assert a privilege regarding such documents.

121. Obligations of this Administrative Consent Order are imposed pursuant to the police powers of the State of New Jersey for the enforcement of law and the protection of the public health, safety and welfare and are not intended to constitute debt or debts which may be limited or discharged in a bankruptcy proceeding.

122. In addition to the Department's statutory and regulatory rights to enter and inspect, PPG shall provide the Department and its authorized representatives access to all sites under this Administrative Consent Order at all times under the same conditions under PPG has access for the purpose of monitoring PPG's compliance with this Administrative Consent Order and/or to perform any remedial activities PPG fails to perform as required by this Administrative Consent Order. The Department's and its authorized representatives' access hereunder shall be conditioned upon their compliance with the applicable site's Health and Safety Plan to the maximum extent practicable as determined by the Department.

123. PPG shall not construe any informal advice, guidance, suggestions, or comments by the Department, or by persons acting on behalf of the Department, as relieving PPG of its obligations to obtain written approvals as required herein, unless the Department specifically relieves PPG of such obligations in writing.

124. No modification or waiver of this Administrative Consent Order shall be valid except by written amendment to this Administrative Consent Order duly executed by PPG and the Department.

125. PPG hereby consents to and agrees to comply with the provisions of this Administrative Consent Order applicable to it, which shall be fully enforceable as an Order in the New Jersey Superior Court upon the filing of a summary action for compliance pursuant to N.J.S.A. 13:1D-1 et seq., the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.

126. PPG waives its rights to an administrative hearing concerning the entry of this Administrative Consent Order.

127. PPG agrees not to contest the authority or jurisdiction of the Department to issue this Administrative Consent Order; PPG further agrees not to contest the terms or conditions of this Administrative Consent Order except as to interpretation or application of such terms and conditions in any action brought by the Department to enforce the provisions of this Administrative Consent Order.

128. Within thirty (30) calendar days after the effective date of this Administrative Consent Order, PPG will withdraw its January 23, 1990 petition to the Department without prejudice, and take the necessary steps to dismiss with prejudice all civil cases against the Department, including but not limited to the following civil cases in the Superior Court of New Jersey, Appellate Division:

- (1) Ultramar Petroleum, Inc. and PPG Industries, Inc. v. New Jersey Department of Environmental Protection, Docket No. A-3389-89T5, filed March 13, 1990;
- (2) Ultramar Petroleum, Inc. and PPG Industries, Inc. v. New Jersey Department of Environmental Protection, Docket No. A-4988-89T5, filed May 30, 1990;
- (3) PPG Industries, Inc. v. New Jersey Department of Environmental Protection, Docket No. A-5054-89T2, filed May 31, 1990 (ROD challenge); and
- (4) PPG Industries, Inc. v. New Jersey Department of Environmental Protection, Docket No. (not assigned), filed July 2, 1990 (Residential Sites Directive challenge).

In no event shall PPG's dismissal of these actions bar PPG from raising any legal or technical challenges to any legal or technical challenges to any future actions of the Department not otherwise prohibited by this Administrative Consent Order that rely on the information or conclusions contained in the administrative records of the prior actions challenged in the above-mentioned civil cases.

129. In the event that the Department determines that a public meeting concerning the cleanup of any of the sites under this Administrative Consent Order is necessary at any time, PPG shall ensure that its appropriate representatives are prepared, available, and participate in any

such meeting upon reasonable notification from the Department of the date, time and place of any such meeting.

130. PPG shall provide a copy of this Administrative Consent Order to each chief contractor and chief subcontractor retained to perform the work required by this Administrative Consent Order. Chief contractor or subcontractor shall be those whose contracts hereunder have a total planned or actual value exceeding \$25,000. PPG shall be responsible to the Department for ensuring that their contractors and subcontractors perform the work herein in accordance with this Administrative Consent Order.

131. PPG agrees not to bring an action or maintain any existing or future claim or demand upon any State fund(s), established for the purpose of remediating or responding to environmental contamination, including the New Jersey Spill Compensation Fund, N.J.S.A. 58:10-23.11i and the Sanitary Landfill Facility Contingency Fund, N.J.S.A. 13:1E-100 et seq., for the cost of investigation and remediation or any other actions required by this Administrative Consent Order and for damages sustained by PPG, its predecessor's or its successors and assigns as a result of contamination attributable to PPG or its predecessors' at sites under this Administrative Consent Order provided however, PPG does not release or waive any right it may have to seek damages otherwise from any other responsible party for such costs or damages.

132. PPG shall provide to the Department written notice of a dissolution of its corporate identity or liquidation of its assets at least thirty (30) calendar days prior to such dissolution or liquidation. PPG shall also provide written notice to the Department of a filing of a petition for bankruptcy no later than the time for giving notice of such filing to creditors or as otherwise required by law. Upon receipt of notice of dissolution of corporate identity, or liquidation of assets, except in the case of a bankruptcy filing, the Department may require that PPG apply to obtain additional financial assurance and thereafter submit to the Department additional financial assurance.

133. As soon as reasonably possible, but not greater than thirty (30) calendar days following the execution of this Administrative Consent Order, PPG shall submit to the Department, along with the executed original Administrative Consent Order, the appropriate documentary evidence (such as a corporate resolution) that the signatory for PPG has the authority to bind PPG, to the terms of this Administrative Consent Order. PPG's representative, however, certifies that he or she is fully authorized by PPG to enter into the terms and conditions of this Administrative Consent Order and to bind that entity to it.

134. Except as to paragraph 117, and the December 2, 1988 Directive to the extent that the Department notified PPG in writing that PPG completed the IRMs in satisfaction of the December 2, 1988 Directive, the requirements of this Administrative Consent Order shall be deemed satisfied upon the receipt by PPG of written notice from the Department that PPG has demonstrated, to the satisfaction of the Department, that the obligations imposed by this Administrative Consent Order have been completed by PPG.

135. Except as provided for in paragraph 26 above, by entering into this Administrative Consent Order, the Department does not waive its right to assess or collect civil or civil administrative penalties for past, present and future violations by the PPG of any New Jersey environmental statutes or regulations.

136. The obligations and liabilities of any non-signatories to this Administrative Consent Order shall not be discharged or extinguished by this Administrative Consent Order.

137. PPG admits that it has agreed to comply with the terms of this Administrative Consent Order. Neither the entry into this Administrative Consent Order nor the conduct of PPG hereunder, shall be construed as any admission of fact, fault or liability by PPG under any applicable laws or regulations.

138. This Administrative Consent Order shall become effective upon the execution by all parties hereto.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Date: July 19, 90

By: Ronald T. Corcory

Ronald T. Corcory, Assistant Director
Responsible Party Cleanup Element
Division of Hazardous Waste Management

Date: July 19, 1990

PPG INDUSTRIES, INC.

By: Richard M. Rompala

Richard M. Rompala
Group Vice President, Chemicals

ATTACHMENT ONE

NON-RESIDENTIAL CHROMATE CHEMICAL PRODUCTION WASTE SITES

| SITE #* | SITE NAME | LOCATION | BLOCK | LOT |
|---------|-------------------------------------|---|----------------------|--|
| 121 | Garfield Auto Parts | 942 Garfield Avenue Jersey City | 2040 | B1,K,H |
| 143 | F. Talarico Auto | 846 Garfield Avenue Jersey City | 2007 | 1-15 |
| 002 | Caven Point 1 | 80 Caven Point Road Jersey City | 1497 | 2L |
| 003 | Caven Point 2 | Rear of 80 Caven Point Road, Jersey City | 1497 | 2R |
| 004 | Caven Point 3 | 90 Caven Point Road Jersey City | 1497 | 2N |
| 005 | Caven Point 4 | Rear of 90 Caven Point Road, Jersey City | 1497 | 2K |
| 016 | Linden East | Linden Avenue East Jersey City | 1507 | 4L,4J |
| 063 | Baldwin Oils & Commodities, Inc. | Caven Point Road at Burma Road, Jersey City | 2154.2 | 4 |
| 107 | Fashionland | 18 Chapel Avenue Jersey City | 1505 | Z.1 |
| 108 | Albanil Dyestuff | 20 E. Linden Avenue Jersey City | 1505 | Y |
| 112 | Ultramar Petroleum #1 | Caven Point Road and Linden Avenue East Jersey City | 1507 1494 1497 | 10F, 4DDV, 1H,1E, 2,2V, 2B,2E, 2G |
| 114 | Garfield Avenue Site | 880 Garfield Avenue Jersey City | 2026A,2 016 | A11 |
| 132 | Town & Country Linen Warehouse | 808 Garfield Avenue Jersey City | 2006.1 | 2 |
| 133 | Ross Wax | 22 Halladay Street Jersey City | 2017 | 1K |

ATTACHMENT ONE (continued)

| SITE #* | SITE NAME | LOCATION | BLOCK | LOT |
|---------|--|---|-------|-------|
| 135 | Vitarroz | 51-99 Pacific Avenue Jersey City | 2017 | 1 |
| 137 | Rudolf Bass, Inc. | 45 Halladay St. Jersey City | 2016 | A2 |
| 147 | Hartz Mountain (Douglas Holdings Corp.) | Baldwin Avenue Weehawken | 36D | 5B,6B |
| 008 | DEP Green Acres Site | East of Ultramar, North of Port Liberte Jersey City | 1497 | 12 |
| 065 | Burma Road | West side of Burma Rd. Near Caven Point Rd. Jersey City | 1497 | |
| 066 | Caven Point 5 (aka Site 2 & 3) | Government Road Jersey City | 1497 | 2L,2R |
| 146 | Commerce Street Site | Foot of Commerce St. Bayonne | | |

* Site number as designed by the Department.

ATTACHMENT TWO

RESIDENTIAL SITES

| SITE #* | SITE NAME | LOCATION | BLOCK | LOT |
|---------|--|--|-------|---------------------|
| 001 | Bramhall Ave. | 597 Bramhall Ave. | 1960 | 65 |
| 006 | Communipaw 1 | 378 Communipaw Ave. | 2054 | 1 |
| 010 | Grand St. 4 | 383 Grand St. | 339 | 84,86 |
| 011 | Grand St. 5 | 267,269,271 Grand St. | 233 | 204, 205, 206 |
| 012 | Grand St. 6 | 539-547 Grand St. | 2087 | 27,28A 29,30 |
| 013 | Halladay St. | 215 Halladay St. | 2042 | L |
| 014 | Kearny Ave. | 30-32 Kearny Ave. | 1996 | 11,12 |
| 018 | Pacific 1 | 421-425, 443-47 Pacific Ave. | 2091 | 3A,3B, 4A |
| 022 | Woodward St. | 299-301 Woodward St. | 2087 | 12,13 |
| 023 | Communipaw 2,3 | 499-501 Communipaw Ave. | 1942 | C |
| 024 | Communipaw 4 | 839, 841-843 Communipaw Ave. | 1744 | 9,10 |
| 028 | Dwight St. #1b | 194 Dwight St. | 1326 | 86 |
| 029 | Dwight St. #1c | 190 Dwight St. | 1326 | 85A |
| 037 | Martin Luther King Dr. (Jackson Ave.) | 143-147 Martin Luther King Dr. (Jackson Ave.) | 1328 | 11F, 11K |
| 038 | Cambridge Ave. | 51 Cambridge Ave. | 753 | 14 |
| 039 | Pine St. | 260 Pine St. | 2070 | A |
| 074 | Dwight St. #10 | 188 Dwight St. | 1326 | 83.A |
| 075 | Dwight St. #12 | 121 Dwight St. | 1330 | 16 |
| 080 | Grand St. #1 | 223-225 Grand St. | 198 | 14,15 |
| 081 | Grand St. #2 | 215-217 Grand St. | 198 | 18,19 |
| 082 | Grand St. #3 | 237 Grand St. | 198 | 8 |

ATTACHMENT TWO (continued)

| SITE #* | SITE NAME | LOCATION | BLOCK | LOT |
|---------|--|--|-------|----------------|
| 083 | Grand St. #7 | 235 Grand St. | 198 | 9 |
| 084 | Grand St. #8 | 219 Grand St. | 198 | 17 |
| 085 | Grand St. #9 | 381 Grand St. | 339 | 86 |
| 089 | Martin Luther King Dr. #3 (Jackson Ave.) | 149 Martin Luther King Dr. (Jackson Ave.) | 1328 | 11L |
| 096 | Ninth St. Firehouse | 211 Ninth St. near Grove | 1051 | 28 |
| 102 | Woodlawn St. | 124A Woodlawn | 1335 | 34B, 35A. |
| 118 | La Point Park | DeKalb St. | 1839 | 38,39 |
| 123 | Stegman St. | 136 Stegman St. | 1318 | 41A |
| 127 | Pine St. 2 | 262-266 Pine St. | 2070 | 81,82 |
| 128 | Monitor St. | 65-71 Monitor St. | 2070 | 15,16 17,18 |
| 129 | Dwight St. | Dwight St. | 1326 | 82A |

* Site number as designated by the Department.

Attachment 2

ROBINSON, WAYNE & LaSALA
One Gateway Center
Newark, NJ 07067
(201) 621-7900

DICKIE, McCAMEY & CHILCOTE
A Professional Corporation
Two PPG Place, Suite 400
Pittsburgh, PA 15222-5402
(412) 281-7272

Attorneys for Defendant, PPG Industries, Inc.

By: Joseph F. Lagrotteria, Esquire
George E. McGrann, Esquire

EXXON CORPORATION,

Plaintiff,

v.

SUPERIOR COURT OF NEW JERSEY
LAW DIVISION
HUDSON COUNTY
CIVIL ACTION
DOCKET #: W-001301-90

PPG INDUSTRIES, INC., et al,

Defendants.

**PPG INDUSTRIES, INC.'S ANSWERS AND OBJECTIONS TO
PLAINTIFF'S FIRST SET OF INTERROGATORIES**

Defendant PPG Industries, Inc. hereby files its Answers and Objections to Plaintiff Exxon Corporation's ("Exxon") First Set of Interrogatories. Unless otherwise indicated, "PPG" will refer to PPG Industries, Inc. as defined in Definition No. 3 of Exxon's Interrogatories.

**GENERAL STATEMENT, LIMITATIONS AND
OBJECTIONS TO ALL INTERROGATORIES**

PPG has not completed its investigation of the facts related to this action. It is anticipated that discovery, additional investigation and other information may lead to supplementation or modification of these Responses. These

Responses are provided without prejudice to PPG's right to produce evidence of any subsequently discovered facts or information.

PPG objects to each Interrogatory insofar as it seeks information or imposes obligations beyond what is permitted under the rules governing the Courts of the State of New Jersey.

PPG further objects to each Interrogatory insofar as it is overly broad, unduly burdensome, oppressive, duplicative, irrelevant or not reasonably calculated to lead to the discovery of admissible evidence. PPG objects to each request insofar as it seeks information relating to PPG's chromium processing plants other than the Garfield Avenue Site.

PPG further objects to each Interrogatory insofar as it seeks information which is within the custody or control of Exxon or third parties, which is publicly available, or which is equally accessible or ascertainable by Exxon.

PPG further objects to each Interrogatory insofar as it seeks information that is protected from disclosure by the Work-Product Doctrine, the Attorney-Client Privilege, or other applicable privilege.

PPG further objects to each Interrogatory insofar as it seeks confidential or proprietary information, in the absence of an appropriate protective order or other authorization.

PPG further objects to each Interrogatory insofar as it seeks information that is protected from disclosure by reason of a protective order or other court order.

Finally, most of the information sought in these Interrogatories pertains to events which occurred thirty or more years ago. To PPG's knowledge, persons with first-hand knowledge of such matters are no longer employed by PPG. As such, many of the Answers that follow are based on documents; and such documents, except those withheld on the basis of privilege or work product bases, have been produced to Exxon. Because of the volume of these documents, PPG invokes R.4:17-4(e) to answer many of these Interrogatories.

1. Identify all persons having knowledge of any facts relevant to the subject matter of this litigation and describe in detail the extent and nature of their knowledge.

ANSWER: PPG objects to this Interrogatory on the grounds that it is overly broad, unduly burdensome and oppressive. Without waiving these Objections, the following persons who are present or former employees of PPG may have first-hand information relevant to the subject matter of this litigation:

1. Chester Milczarek (retired, living in Texas);
2. Robert Widing (retired);
3. R.J. Samelson (PPG Industries, Inc., Pittsburgh, PA); and
4. L.S. Bryant (PPG Industries, Inc., Pittsburgh, PA).

Mr. Samelson and Mr. Bryant do not have personal knowledge of the operations of the Garfield Avenue Site, but rather have been involved in technical discussions with NJDEP and investigation and remedial matters. In addition, various contractors and truck drivers have been identified who may have information relevant to this litigation. These include: V. DeSantis, R. Ambrosio, V. Liebhart, J.P. Baker, C. Peretti, L. Corio, C. Karmazin, and perhaps more. Finally, PPG believes

that each of the other parties to this litigation, including Exxon, know of persons who may have information relevant but whose identities are presently unknown to PPG. A description of the information, as well as the identity of other persons having information relevant to this litigation, is disclosed in the documents that PPG has made available to Exxon in response to Exxon's Request for Production. PPG refers, therefore, to R.4:17-4(e).

2. Identify all persons whom you expect to call at trial as expert witnesses.

ANSWER: PPG has not identified which experts, if any, it expects to call at trial.

3. As to each expert identified in the preceding interrogatory:

- (a) state the subject matter on which the expert is expected to testify;
- (b) state the substance of the facts and opinions to which the expert is expected to testify;
- (c) provide a summary of the grounds for each such opinion; and
- (d) attach hereto a copy of all written reports or opinions (both draft and final versions) rendered by the expert witness in the present matter and provide a complete summary of all oral reports rendered by such expert witness.

ANSWER: Not applicable.

4. Identify all persons who have been retained as expert witnesses who are not expected to be called at trial.

ANSWER: PPG objects to this Interrogatory on the grounds that it is not relevant or reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, PPG responds that it has retained no experts that does not expect to call as witnesses at trial at this time.

5. State whether you, or anyone acting on your behalf, has obtained any oral or written statements from any person or entity concerning the subject matter of this litigation.

ANSWER: Yes.

6. If the answer to the preceding interrogatory is "yes":

- (a) identify each person from whom a statement was obtained;
- (b) identify and attach to your answers to these interrogatories all such written statements;
- (c) with regard to each such oral statement:
 - (i) identify the person to whom it was made, state the date it was made,
 - (ii) identify all persons present when it was made,
 - (iii) fully describe its content,
 - (iv) state whether the statement was transcribed or recorded in any fashion, and identify the person who has custody of any such recording or transcription, and
 - (v) attach to your answers to these interrogatories a copy of any documents

which relate to each such oral statement,
including any transcription.

ANSWER:

- (a) Chester Milczarek - written
Robert Widing - written
Dominick Norcia - written
Claude Peretti - written

In addition, PPG has in its possession various deposition transcripts from other litigation involving chromium residue in Hudson County, all of which have been produced to Exxon.

- (b) PPG objects to the production of these written statements on the grounds of the work-product doctrine.
- (c) PPG, through its retained investigator, James Dunn, has interviewed a number of potential witnesses relating to the transportation of chromium residue in Hudson County. No statements were taken other than the Norcia and Peretti statements referred to above. PPG objects to the remainder of this Interrogatory, on the grounds of the work-product doctrine.
- (d) See above.
- (e) Except as indicated above, PPG objects to this subpart on the grounds of the work-product doctrine.

7. State whether you ever owned or acquired a legal or equitable interest in the whole or any portion of any of the Chromium Sites.

ANSWER: Yes.

8. If the answer to the preceding interrogatory is "yes," for each such interest:

- (a) state the date on which you acquired each such interest;
- (b) identify the person or entity from whom you acquired each such interest;
- (c) describe in detail the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (d) identify all documents which describe the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (e) identify the site or portion of the site in which you owned or acquired an interest; and
- (f) identify all documents which relate to your acquisition of each such interest.

ANSWER: See Answer to Interrogatory No. 14.

9. State whether you ever sold, transferred or otherwise conveyed a legal or equitable interest in the whole or any portion of any of the Chromium Sites.

ANSWER: Yes.

10. If the answer to the preceding interrogatory is "yes," for each such interest:

- (a) state the date on which you sold, transferred or otherwise conveyed each such interest;

- (b) identify the person or entity to whom you sold, transferred or otherwise conveyed each such interest;
- (c) describe in detail the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (d) identify all documents which describe the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (e) identify the site or portion of the site in which you sold, transferred or otherwise conveyed an interest; and
- (f) identify all documents which relate to your sale or conveyance of each such interest.

ANSWER: See Answer to Interrogatory No. 16.

11. State whether you ever engaged in any activities or conducted any operations, including but not limited to the processing, handling, storage, and transportation of chromium or chromium-related materials, at any of the Chromium Sites.

ANSWER: PPG, through itself or subsidiaries, was engaged in the processing of chromium at the Garfield Site from 1954 to 1963. As a result of that processing activity, chromium residue from operations were from time to time stored on the Garfield Site.

12. If the answer to the preceding Interrogatory is "yes":

- (a) State the date(s) on which you began and ceased those activities or operations; and
- (b) Describe in detail the nature of those operations and activities.

ANSWER: (a) 1954 - July, 1963.

(b) Chromium ore was processed at the Garfield Avenue Site. See also Answer to Interrogatory No. 33.

13. State whether PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY ever owned or acquired a legal or equitable interest in the whole or any portion of any of the Chromium Sites.

ANSWER: Yes, with respect to Pittsburgh Plate Glass Co. and Columbia Southern Chemical Corp. In addition, since Columbia Southern Chemical Corp. purchased its interest from Natural Products Refining Company, that company had an interest in the Garfield Avenue Site before 1954.

14. If the answer to the preceding interrogatory is "yes," for each such interest and for each of the entities listed in the preceding Interrogatory that owned or acquired a legal or equitable interest in the whole or any portion of any of the Chromium Sites:

- (a) state the date on which it acquired each such interest;
- (b) identify the person or entity from whom it acquired each such interest;

- (c) describe in detail the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (d) identify all documents which describe the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (e) identify the site or portion of the site in which it owned or acquired an interest; and
- (f) identify all documents which relate to its acquisition of each such interest.
- (g) set forth in detail and fully describe the purposes for which it used or uses any of the Chromium Sites.

ANSWER: Columbia Southern Chemical Corp.

- (a) July 20, 1954.
- (b) Natural Products Refining Company ("NPRC").
- (c) Owner in Fee.
- (d) Deed.
- (e) Portion of Garfield Avenue Site previously owned by NPRC.
- (f) See documents produced by PPG, which include the Purchase Agreement and deed.
- (g) See Answers to Interrogatory Nos. 12 and 33.

Pittsburgh Plate Glass Co.

- (a) December 22, 1954.
- (b) Pittsburgh Plate Glass Co.
- (c) Owner in Fee; Transfer of Title.
- (d) Deed.

- (e) Portion of Garfield Avenue Site.
- (f) See documents produced by PPG, which include the deed.
- (g) See Answers to Interrogatory Nos. 12 and 33.

15. State whether PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY ever sold, transferred or otherwise conveyed a legal or equitable interest in the whole or any portion of any of the Chromium Sites.

ANSWER: Yes. Natural Products Refining Company transferred title to a portion of the Garfield Avenue Site to Columbia Southern Chemical Corp. on July 20, 1954. See Answer to Interrogatory No. 14. In addition, Columbia Southern Chemical Corp. transferred title to Pittsburgh Plate Glass Co. in late 1954. See Answers to Interrogatory No. 14. For the sale of the Garfield Avenue Site by PPG, see Answer to Interrogatory No. 16.

16. If the answer to the preceding interrogatory is "yes," for each such interest and for each of the entities listed in the preceding Interrogatory that sold, transferred or otherwise conveyed a legal or equitable interest in the whole or any portion of any of the Chromium Sites:

- (a) state the date on which it sold, transferred or otherwise conveyed each such interest;
- (b) identify the person or entity to whom it sold, transferred or otherwise conveyed each such interest;

- (c) describe in detail the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (d) identify all documents which describe the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (e) identify the site or portion of the site in which it sold, transferred or otherwise conveyed an interest; and
- (f) identify all documents which relate to its sale or conveyance of each such interest.

ANSWER:

- (a) July 13, 1964.
- (b) Fred Fishbein, trading as Clif Associates.
- (c) Owner in fee.
- (d) See documents produced by PPG, which include the Purchase Agreement and deed.
- (e) Garfield Avenue Site.
- (f) See documents produced by PPG.

17. State whether PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY ever engaged in any activities or conducted any operations, including but not limited to the processing, handling, storage, and transportation of chromium or chromium-related materials, at any of the Chromium Sites.

ANSWER: See Answer to Interrogatory No. 11.

18. If the answer to the preceding Interrogatory is "yes," for each of the entities listed in the preceding Interrogatory that engaged in any activities or conducted any operations at any of the Chromium Sites:

- (a) State the date(s) on which it began and ceased those activities or operations; and
- (b) Describe in detail the nature of those operations and activities.

ANSWER: See Answer to Interrogatory No. 12. From 1954 to 1963, these activities were conducted either by PPG or by its wholly owned subsidiary Columbia Southern Chemical Corp. To PPG's understanding, before 1954 similar operations were conducted by Natural Products Refining Company.

19. State whether any of the entities which are described in the following subsections ever owned or acquired an interest in the whole or any portion of any of the Chromium Sites, and identify any such entities:

- (a) any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.,
- (b) any present or former direct or indirect subsidiaries of PPG INDUSTRIES, INC.,
- (c) any present or former subsidiaries of any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.;
- (d) any successors to PPG INDUSTRIES, INC.;
- (e) any predecessors of PPG INDUSTRIES, INC.;

- (f) any corporations that merged into or with PPG INDUSTRIES, INC. or into or with any predecessor of PPG INDUSTRIES, INC.;
- (g) any corporation that resulted from a merger with or into PPG INDUSTRIES, INC. or with or into any predecessor of PPG INDUSTRIES, INC.;
- (h) any entity that purchased all or a substantial portion of the assets of PPG INDUSTRIES, INC.;
- (i) any entity whose assets or a substantial portion of whose assets were purchased by PPG INDUSTRIES, INC.;
- (j) any entity which acquired 5% or more of the outstanding stock of PPG INDUSTRIES, INC.;
- (k) any other entities that are or were otherwise affiliated with or related to PPG INDUSTRIES, INC. by virtue of one or more incorporations, dissolutions, mergers, stock acquisitions, stock sales, name changes, asset purchases, or asset sales.

ANSWER: See Answers to Interrogatory Nos. 13 and 14.

- (a) No.
- (b) Columbia Southern Chemical Corp.
- (c) No.
- (d) No.
- (e) Pittsburgh Plate Glass Company.
- (f) Columbia Southern Chemical Corp.

- (g) No.
- (h) No.
- (i) No.
- (j) No.
- (k) Columbia Southern Chemical Corp.

20. For each entity identified in answer to the preceding Interrogatory:

- (a) describe its present or former relationships to PPG INDUSTRIES, INC.;
- (b) identify the Chromium Site(s), or portion thereof, which it owned or in which it acquired an interest;
- (c) state the date on which it acquired each such interest;
- (d) identify the person or entity from whom it acquired its interest(s) in any of the Chromium Sites;
- (e) describe the nature (e.g., owner in fee, tenant, etc.) of each interest acquired by such entity in any of the Chromium Sites; and
- (f) identify all documents which describe the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (h) identify all documents which relate to its acquisition of each such interest;

- (i) set forth in detail and fully describe the purposes for which it used or uses any of the Chromium Sites during the period it held any interest in said site.

ANSWER: See Answer to Interrogatory No. 14. Columbia Southern was a wholly owned subsidiary of PPG, since merged into PPG.

21. State whether any entity identified in answer to Interrogatory 19 ever sold, transferred or otherwise conveyed a legal or equitable interest in the whole or any portion of any of the Chromium Sites.

ANSWER: See Answers to Interrogatory Nos. 14 and 16.

22. If the answer to the preceding interrogatory is "yes," for each such entity and for each such interest sold, transferred or otherwise conveyed:

- (a) state the date on which it sold, transferred or otherwise conveyed each such interest;
- (b) identify the person or entity to whom it sold, transferred or otherwise conveyed each such interest;
- (c) describe in detail the nature (e.g., owner in fee, tenant, etc.) of each such interest;
- (d) identify all documents which describe the nature (e.g., owner in fee, tenant, etc.) of each such interest;

- (e) identify the site or portion of the site in which it sold, transferred or otherwise conveyed an interest; and
- (f) identify all documents which relate to its sale or conveyance of each such interest.

ANSWER: See Answers to Interrogatory Nos. 14 and 16.

23. State whether any of the entities which are described in the following subsections ever engaged in any activities or conducted any operations, including but not limited to the processing, handling, storage, and transportation of chromium or chromium-related materials, at any of the Chromium Sites, and identify any such entities:

- (a) any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.;
- (b) any present or former direct or indirect subsidiaries of PPG INDUSTRIES, INC.,
- (c) any present or former subsidiaries of any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.;
- (d) any successors to PPG INDUSTRIES, INC.;
- (e) any predecessors of PPG INDUSTRIES, INC.;
- (f) any corporations that merged into or with PPG INDUSTRIES, INC. or into or with any predecessor of PPG INDUSTRIES, INC.;

- (g) any corporation that resulted from a merger with or into PPG INDUSTRIES, INC. or with or into any predecessor of PPG INDUSTRIES, INC.;
- (h) any entity that purchased all or a substantial portion of the assets of PPG INDUSTRIES, INC.;
- (i) any entity whose assets or a substantial portion of whose assets were purchased by PPG INDUSTRIES, INC.;
- (j) any entity which acquired 5% or more of the outstanding stock of PPG INDUSTRIES, INC.;
- (k) any other entities that are or were otherwise affiliated with or related to PPG INDUSTRIES, INC. by virtue of one or more incorporations, dissolutions, mergers, stock acquisitions, stock sales, name changes, asset purchases, or asset sales.

ANSWER: See Answers to Interrogatory Nos. 11, 12, 14 and 18.

24. For each entity identified in answer to the preceding Interrogatory:

- (a) identify each Chromium Site at which it engaged in any activities or conducted any operations;
- (b) state the date(s) on which it began and ceased those activities or operations at each such site; and

- (c) describe in detail the nature of those operations and activities at each such site.

ANSWER: See Answers to Interrogatory Nos. 11, 12, 14 and 18.

25. Did you ever produce, process, treat or use chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium?

ANSWER: Yes.

26. If the answer to the preceding interrogatory is "yes":

- (a) identify the locations or sites at which you produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (b) state the dates that you began and ceased the production, processing, treatment, or use of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium at each location or site identified in answer to subpart (a); and
- (c) identify the owner(s) of the locations or sites set forth in answer to subpart (a) during the

period of time described in answer to subpart
(b).

ANSWER: PPG objects to this Interrogatory insofar as it may pertain to any operations other than at the "chromium sites" as that term is defined in the definitions as overbroad, and not calculated to lead to the discovery of relevant information.

- (a) Garfield Avenue Site.
- (b) 1954 - July, 1963.
- (c) Columbia Southern Chemical Corp. and Pittsburgh Plate Glass Co.

27. State whether PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY ever produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium.

ANSWER: Yes.

28. If the answer to the preceding Interrogatory is "yes," for each of the entities listed in the preceding Interrogatory that produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium:

- (a) identify the locations or sites at which it produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;

- (b) state the dates that it began and ceased the production, processing, treatment, or use of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium at each location or site identified in answer to subpart (a); and
- (c) identify the owner(s) of the locations or sites set forth in answer to subpart (a) during the period of time described in answer to subpart (b).

ANSWER: See objection to Interrogatory No. 26.

Natural Products Refining Company ("NPRC")

- (a) Portion of Garfield Avenue Site;
- (b) Beginning date unknown; cessation date July 20, 1954;
- (c) NPRC.

Pittsburgh Plate Glass Co.

- (a) Portion of Garfield Avenue Site;
- (b) July 20, 1954 - December 22, 1954;
- (c) Pittsburgh Plate Glass Co.

Columbia Southern Chemical Corp.

- (a) Portion of Garfield Avenue Site;
- (b) July 20, 1954 - 1956;
- (c) Columbia Southern Chemical Corp.

Columbia Southern Chemical Corp.

- (a) Garfield Avenue Site;
- (b) 1956 - December 31, 1956;
- (c) Columbia Southern Chemical Corp.

Pittsburgh Plate Glass Co.

- (a) Garfield Avenue Site;
- (b) December 31, 1956 - 1963;
- (c) Pittsburgh Plate Glass Co.

29. State whether any of the entities which are described in the following subsections ever produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium, and identify any such entities.

- (a) any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.;
- (b) any present or former direct or indirect subsidiaries of PPG INDUSTRIES, INC.;
- (c) any present or former subsidiaries of any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.;
- (d) any successors to PPG INDUSTRIES, INC.;
- (e) any predecessors of PPG INDUSTRIES, INC.;
- (f) any corporations that merged into or with PPG INDUSTRIES, INC. or into or with any predecessor of PPG INDUSTRIES, INC.;

- (g) any corporation that resulted from a merger with or into PPG INDUSTRIES, INC. or with or into any predecessor of PPG INDUSTRIES, INC.;
- (h) any entity that purchased all or a substantial portion of the assets of PPG INDUSTRIES, INC.;
- (i) any entity whose assets or a substantial portion of whose assets were purchased by PPG INDUSTRIES, INC.;
- (j) any entity which acquired 5% or more of the outstanding stock of PPG INDUSTRIES, INC.;
- (k) any other entities that are or were otherwise affiliated with or related to PPG INDUSTRIES, INC. by virtue of one or more incorporations, dissolutions, mergers, stock acquisitions, stock sales, name changes, asset purchases, or asset sales.

ANSWER: See Answers to Interrogatory Nos. 27 and 28.

30. For each entity identified in answer to the preceding Interrogatory:

- (a) identify the locations or sites at which it produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;

- (b) state the dates that it began and ceased the production, processing, treatment, or use of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium at each location or site identified in answer to subpart (a); and
- (c) identify the owner(s) of the locations or sites set forth in answer to subpart (a) during the period of time described in answer to subpart (b).

ANSWER: See Answer to Interrogatory No. 26.

31. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons or entities, other than PPG INDUSTRIES, INC., that produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium at any time at the location or site.

ANSWER: PPG ceased its chromium-related operations at the Garfield Avenue Site in July of 1963, and sold the Garfield Avenue Site in 1964 to Clif Associates. It is unknown whether Clif Associates or any other entity that subsequently occupied the Garfield Avenue Site produced, processed, treated or used any of the materials listed above, except insofar as discovery and testimony taken in the *JCRA v. PPG* case suggests that Clif Associates and related entities sold or distributed chromium residue after the sale by PPG of the Garfield Site in 1964. In addition, see documents produced by PPG relating to activities at the Garfield Avenue Site before 1954.

32. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify the types and chemical composition of the chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium which were produced and/or processed at the location or site.

ANSWER: At the Garfield Avenue Site, PPG processed raw chromium ore through use of a roasting and leaching process to produce sodium chromate, potassium bichromate and sodium dichromate. During this process, chromium residue, consisting primarily of a magnesium and iron oxide matrix, and containing small amounts of aluminum, magnesium, and chromium (chromium residue), was produced and stored at the site.

33. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), describe the methods used to produce and/or process each type of chromium, chromium ore, chromium chemical, chromium compound, chromium-related material, or material containing chromium that was produced or processed at the location or site.

ANSWER: At the Garfield Avenue Site, chromium-bearing ore was mixed with alkali and roasted at high temperature to produce sodium chromate, sodium bichromate and potassium bichromate.

34. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), describe the means and methods by which any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site were removed from the location or site.

ANSWER: Most of the chromium residue produced at the Garfield Avenue Site was sold or given to contractors who transported the chromium residue via truck to off-site locations where it was used as construction fill. Non-

chromium wastes may have been removed through solid waste contractors.

35. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), describe the means and methods by which any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site were discarded or disposed of.

ANSWER: See Answer to Interrogatory No. 34.

36. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all real property to which any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site were transported.

ANSWER: Unknown at the present time. The chromium residue was sold or given to third parties, who in turn used the chromium residue as fill. To the extent PPG is presently aware of the location of the chromium residue, see documents produced by PPG. For each site at which it has been alleged that PPG chromium residue is present, it is presently unclear whether the chromium residue originated from the Garfield Site, the Diamond Site, the Allied Site, the Roosevelt Site or some other site.

37. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all real

property at which any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site were disposed of, dumped, or released.

ANSWER: Unknown at the present time. See Answer to Interrogatory No. 36.

38. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all real property at which any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site were used as fill or backfill, or for any other construction purposes.

ANSWER: Unknown at the present time. See Answer to Interrogatory No. 36.

39. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons and entities who removed from the location or site any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site.

ANSWER: Upon information, belief and preliminary investigation, the following contractors and/or individuals may have been

involved in the removal of chromium residue from the Garfield Site during the time the facility was owned by PPG:

1. V. DeSantis
2. V. Liebhart
3. V&L Contractors
4. J. Peretti
5. A. Ambrosio & Sons
6. Lawrence Construction Co.
7. Clif Associates
8. L. Corio
9. J.P. Baker
10. J. Bradford
11. City of Jersey City
12. A&P Contractors

There may have been others presently unknown to PPG. In addition, PPG refers Exxon to the documents produced by PPG, which may contain information additional to that set forth above.

40. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons and entities who transported, or arranged for the transportation of, any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site, to real property other than the location or site.

ANSWER: See Answer to Interrogatory No. 39.

41. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons and entities who disposed of, dumped or released, or arranged for the disposal of, dumping or release, of any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site, at real property other than the location or site.

ANSWER: See Answer to Interrogatory No. 39.

42. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons and entities who purchased or otherwise acquired rights to any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site, and for each such person or entity:

- (a) state the dates of each such purchase or acquisition;
- (b) identify the type of waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products purchased or acquired;

- (c) for each such purchase or acquisition, state the quantity of waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products purchased or acquired;
- (d) for each such purchase or acquisition, state the price paid for the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products which were purchased or acquired;
- (e) identify and attach, or fully describe, any written or oral agreements or contracts between that person or entity and PPG INDUSTRIES, INC. which relate to the purchase or acquisition.

ANSWER: See Answer to Interrogatory No. 39.

- (a) Circa 1954-1963.
- (b) Chromium residue.
- (c) Exact quantities unknown.
- (d) Unknown at the present time, except as reflected in the testimony of contractors in depositions in the JCRA or Ultramar cases, transcripts of which have been produced to Exxon.
- (e) Other than the sale of the Garfield Site to Clif Associates in 1964, PPG is not in the possession of any such documents.

In addition, upon PPG's sale of the Garfield Avenue Site to Clif Associates in 1964, Clif Associates acquired the rights to any residual chromium residue that may have remained on-site.

43. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons and entities, other than PPG INDUSTRIES, INC., who sold or otherwise assigned rights to any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site.

ANSWER: Unknown at the present time. After PPG's sale of the Garfield Site to Clif Associates in 1964, Clif Associates may have sold or given away any chromium residue which may have existed at the site. In addition, on information and belief, chromium residue from Diamond Shamrock may have been transported to the Garfield Avenue Site after PPG's sale of the Site to Clif in 1964. PPG also refers Exxon to the documents produced by PPG, which may contain further information.

44. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons or entities who possessed any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site.

ANSWER: See Answer to Interrogatory No. 39.

45. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify all persons or entities who used any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded

products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site as fill or backfill, or for any other construction purposes.

ANSWER: See Answers to Interrogatory Nos. 39.

46. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), identify the present location of all waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site.

ANSWER: Unknown at the present time. See Answer to Interrogatory No. 36.

47. Are any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) currently located at the Exxon Sites? If the answer to this Interrogatory is "yes,"

(a) identify the type of the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the

processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that are currently located at each of the Exxon Sites;

- (b) state the annual quantity of each type of the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that is currently located at each of the Exxon Sites;
- (c) identify the persons or entities that produced the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that are currently located at each of the Exxon Sites;

- (d) identify the persons or entities that transported, and/or arranged for the transportation of, the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) to each of the Exxon Sites;
- (e) identify the persons or entities who disposed of, dumped or released, or arranged for the disposal of, dumping or release, of any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) at or onto each of the Exxon Sites;
- (f) identify the persons or entities that at any time owned or possessed the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded

products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that are currently located at each of the Exxon Sites;

- (g) identify the location or site at which the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a), and that are currently located at each of the Exxon Sites, were produced.

ANSWER: PPG knows of no chromium residue from Garfield Avenue at the Exxon Sites, except that PPG has information which suggests that chromium residue from Garfield Avenue and other sources may exist at the site of Exxon's former Eagle Works at Caven Point, Jersey City. In addition, upon information and belief, chromium residue from the Allied, Roosevelt or Diamond Sites may have been transported to the Exxon Sites.

48. Are any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds

at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) currently located at the Bayonne Site? If the answer to this Interrogatory is "yes,"

- (a) identify the type of the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that are currently located at the Bayonne Site;
- (b) state the annual quantity of each type of the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that is currently located at the Bayonne Site;
- (c) identify the persons or entities that produced the waste materials, by-products, primary and secondary residues, muds, residue mud, waste

muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that are currently located at the Bayonne Site;

- (d) identify the persons or entities that transported, and/or arranged for the transportation of, the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) to the Bayonne Site;
- (e) identify the persons or entities who disposed of, dumped or released, or arranged for the disposal of, dumping or release, of any waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium

compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) at or onto the Bayonne Site;

(f) identify the persons or entities that at any time owned or possessed the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a) that are currently located at the Bayonne Site;

(g) identify the location or site at which the waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the locations or sites identified in your answer to Interrogatories 26(a), 28(a) and 30(a), and that are currently located at the Bayonne Site, were produced.

ANSWER: PPG is aware of allegations that chromium residue from the Garfield Site was transported to the Bayonne Site during the 1950's. PPG is further aware of testimony or statements from V. DeSantis, C. Karmazin and J.P. Baker

that they transported chromium residue from the Garfield Site to the Bayonne Site. PPG is presently unaware of whether such chromium residue was used by Exxon at the Bayonne Site or remains at the Bayonne Site.

- (a) See above.
- (b) Unknown.
- (c) PPG is aware of testimony from J.P. Baker that chromium residue originating at the Allied Site or the Roosevelt Site was also transported to the Bayonne Site. Upon information and belief, chromium residue from the Diamond Site may also have been transported to the Bayonne Site.
- (d) See testimony of J.P. Baker and C. Karmazin.
- (e) See Answer to subpart (d).
- (f) See above. In addition, PPG refers Exxon to the documents produced by PPG.
- (g) See above. In addition, PPG refers Exxon to the documents produced by PPG.

49. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), state the annual quantities of waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site.

ANSWER: PPG estimates that for the period of time during which PPG processed chromium ore at the Garfield Avenue Site (i.e., 1954-1963), 30,000 tons of chromium residue were produced on average each year. PPG does not know how much chromium residue was transported by third parties to any location.

50. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), state the annual quantities of waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site that were removed from the location or site.

ANSWER: Unknown at the present time. PPG believes that essentially all of the estimated 300,000 tons of chromium residue that were produced at the Garfield Site both before and during PPG's ownership have been removed from that location.

51. For each location or site identified in your answer to Interrogatories 26(a), 28(a) and 30(a), state the quantities of waste materials, by-products, primary and secondary residues, muds, residue mud, waste muds, and discarded products that were produced during the processing, treatment, or use of chromium, chromium ore, chromium chemicals, or chromium compounds at the location or site that remain at the location or site.

ANSWER: Unknown at the present time. PPG believes the majority, if not all, of the chromium residue has been removed from the Garfield Avenue Site.

52. Set forth in detail and fully describe the purposes for which you used each of the Chromium Sites.

ANSWER: See Answer to Interrogatory No. 12.

53. State the date and state of incorporation of PPG INDUSTRIES, INC., PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., FSF COMPANY and all entities identified in answer to Interrogatories 19, 23, and 29.

ANSWER: PPG Industries, Inc., April 1, 1968, Pennsylvania; Pittsburgh Plate Glass Co., August 24, 1883, Pennsylvania; Natural Products Refining Company, June 1909, New York; Southern Alkali Corp., April 20, 1931, Pennsylvania; Columbia Southern Chemical Corp., April 20, 1931 (under former name Southern Alkali); and FSF Company, unknown.

54. State all former names, if any, of PPG INDUSTRIES, INC., PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., FSF COMPANY and all entities identified in answer to Interrogatories 19, 23, and 29.

ANSWER: PPG Industries, Inc., former name Pittsburgh Plate Glass Company; and Columbia Southern Chemical Corp., former name Southern Alkali Corporation. For the remainder, unknown.

55. State whether you are involved or have been involved in any other litigation, arbitration, other form of dispute resolution, and/or administrative action concerning the production, processing, relocation, disposal, transport, hauling, dumping, release, use, location, relocation, treatment, clean up, containment, or removal of chromium-related materials, or concerning the exposure of any person to chromium or chromium-related materials. If so, for each such item of litigation, arbitration, other form of dispute resolution, and/or administrative action:

- (a) set forth its title or caption; the court, board or agency in which it was or is pending; whether it remains active; and, if inactive, its resolution; and
- (b) identify all documents produced for inspection and/or copying, all depositions taken or testimony given (stating the name of the witness, the date of the deposition or testimony, the relationship of the deponent or witness to you, the location of the transcript, and the name of the court reporter), and requests for admissions and interrogatories served or answered by you.

ANSWER: Yes.

Jersey City Redevelopment Authority v. PPG Industries, Inc.:

- (a) C.A. No. 85-2014, U.S. District Court for the District of New Jersey;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

Ultramar Petroleum, Inc. v. PPG Industries, Inc.:

- (a) C.A. No. 88-4767 (HLS), U.S. District Court for the District of New Jersey; active;
- (b) to be made available for inspection and copying at a mutually agreeable time and place, except for certain documents under a Confidentiality Order.

Gendom Construction Co. v. JCRA:

- (a) C.A. No. 86-190 (MTB), District Court for the District of New Jersey, dismissed with prejudice on March 11, 1988;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

Hoffman v. Totaro:

- (a) C.A. No. W-28775-89, Superior Court of New Jersey Law Division, Hudson County; active;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

Totaro v. City of Jersey City:

- (a) C.A. No. HUD-L-969-90, Superior Court of New Jersey, Hudson County; active;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

Trum v. PPG Industries, Inc.:

- (a) Docket No. W-014248-89, Superior Court of New Jersey, Hudson County; active;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

Ultramar Petroleum v. NJDEP

- (a) Docket No. A-3389-89T5, Superior Court of New Jersey, Appellate Division; discontinued;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

Ultramar Petroleum v. NJDEP

- (a) Docket No. A-4988-89T5, Superior Court of New Jersey, Appellate Division; discontinued;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

PPG Industries, Inc. v. NJDEP

- (a) Docket No. A-5045-89T2, Superior Court of New Jersey, Appellate Division; discontinued;
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

PPG Industries, Inc. v. NJDEP

- (a) Superior Court of New Jersey, Appellate Division, no docket number assigned; discontinued;

- (b) to be made available for inspection and copying at a mutually agreeable time and place.

United Steel Container v. Flic Realty Co.

- (a) Docket No. D-2819-64, Superior Court of New Jersey, Union County; resolution unknown; settled and dismissed.
- (b) to be made available for inspection and copying at a mutually agreeable time and place.

56. State whether PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY are involved or have been involved in any other litigation, arbitration, other form of dispute resolution, and/or administrative action concerning the production, processing, relocation, disposal, transport, hauling, dumping, release, use, location, relocation, treatment, clean up, containment, or removal of chromium-related materials, or concerning the exposure of any person to chromium or chromium-related materials. If so, for each such item of litigation, arbitration, other form of dispute resolution, and/or administrative action:

- (a) state its title or caption; the court, board or agency in which it was or is pending; whether it remains active; and, if inactive, its resolution; and
- (b) identify all documents produced for inspection and/or copying, all depositions taken or testimony given (stating the name of the witness, the date of the deposition or

testimony, the relationship of the deponent or witness to you, the location of the transcript, and the name of the court reporter), and requests for admissions and interrogatories served or answered by PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY.

ANSWER: See Answer to Interrogatory No. 55. PPG has no knowledge of whether Natural Products Refining Company or FSF Company have been involved in any litigation.

57. State whether any of the entities which are described in the following subsections are involved or have been involved in any other litigation, arbitration, other form of dispute resolution, and/or administrative action concerning the production, processing, relocation, disposal, transport, hauling, dumping, release, use, location, relocation, treatment, clean up, containment, or removal of chromium-related materials, or concerning the exposure of any person to chromium or chromium-related materials, and identify the entities which are or have been so involved:

- (a) any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.;
- (b) any present or former direct or indirect subsidiaries of PPG INDUSTRIES, INC.;

- (c) any present or former subsidiaries of any present or former direct or indirect parent corporations of PPG INDUSTRIES, INC.;
- (d) any successors to PPG INDUSTRIES, INC.;
- (e) any predecessors of PPG INDUSTRIES, INC.;
- (f) any corporations that merged into or with PPG INDUSTRIES, INC. or into or with any predecessor of PPG INDUSTRIES, INC.;
- (g) any corporation that resulted from a merger with or into PPG INDUSTRIES, INC. or with or into any predecessor of PPG INDUSTRIES, INC.;
- (h) any entity that purchased all or a substantial portion of the assets of PPG INDUSTRIES, INC.;
- (i) any entity whose assets or a substantial portion of whose assets were purchased by PPG INDUSTRIES, INC.;
- (j) any entity which acquired 5% or more of the outstanding stock of PPG INDUSTRIES, INC.;
- (k) any other entities that are or were otherwise affiliated with or related to PPG INDUSTRIES, INC. by virtue of one or more incorporations, dissolutions, mergers, stock acquisitions, stock sales, name changes, asset purchases, or asset sales.

ANSWER:

- (a) No.
- (b) No.

- (c) No.
- (d) No.
- (e) No.
- (f) No.
- (g) No.
- (h) No.
- (i) No.
- (j) No.
- (k) No.

58. For each entity identified in answer to the preceding Interrogatory, and for each such item of litigation, arbitration, other form of dispute resolution, and/or administrative action:

- (a) state its title or caption; the court, board or agency in which it was or is pending; whether it remains active; and, if inactive, its resolution; and
- (b) identify all documents produced for inspection and/or copying, all depositions taken or testimony given (stating the name of the witness, the date of the deposition or testimony, the relationship of the deponent or witness to you, the location of the transcript, and the name of the court reporter), and requests for admissions and interrogatories which the identified entity served or answered.

ANSWER: (a)-(b) Not applicable.

59. With regard to each site or location at which you produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium, and each site or location in which you owned an interest at which chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium were produced, processed, treated or used, identify the individuals who performed any duties or had any responsibilities with regard to the following:

- (a) the management of the facilities at the site or location;
- (b) occupational health and safety;
- (c) the production or processing of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (d) the treatment of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (e) the use of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;

- (f) the disposal of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (g) the removal of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium from the site or location;
- (h) the storage of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (i) the transportation of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (j) the sale of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (k) environmental risks and hazards.

ANSWER:

PPG objects to this Interrogatory except as it relates to its formerly owned Garfield Avenue facility. PPG refers Plaintiff to the Deposition of Chester Milczarek, taken in the JCRA litigation, which is the best source for this information relative to the Garfield Avenue Site. PPG no longer has records of persons who may have filled such roles. In addition, PPG has produced annual reports and corporate data sheets from the time period in question, as well as other documents, which may contain information responsive to this Interrogatory.

60. With regard to each site or location at which PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY produced, processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium, and each site or location in which PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY owned an interest at which chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium were produced, processed, treated or used, identify the individuals who performed any duties or had any responsibilities with regard to the following:

- (a) the management of the facilities at the site or location;
- (b) occupational health and safety;
- (c) the production or processing of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (d) the treatment of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;

- (e) the use of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (f) the disposal of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (g) the removal of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium from the site or location;
- (h) the storage of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (i) the transportation of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (j) the sale of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (k) environmental risks and hazards.

ANSWER: See Answer to Interrogatory No. 59.

61. With regard to each site or location at which the entities identified in answer to Interrogatory 29 produced,

processed, treated or used chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium, and each site or location in which the entities identified in answer to Interrogatory 19 owned an interest at which chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium were produced, processed, treated or used, identify the individuals who performed any duties or had any responsibilities with regard to the following:

- (a) the management of the facilities at the site or location;
- (b) occupational health and safety;
- (c) the production or processing of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (d) the treatment of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (e) the use of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (f) the disposal of chromium, chromium ore, chromium chemicals, chromium compounds,

chromium-related materials, or materials containing chromium;

- (g) the removal of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium from the site or location;
- (h) the storage of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (i) the transportation of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (j) the sale of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium;
- (k) environmental risks and hazards.

ANSWER: See Answer to Interrogatory No. 59.

62. Did you at any time own, possess, transport, or dispose of chromium, chromium ore, chromium chemicals, chromium compounds, chromium-related materials, or materials containing chromium?

ANSWER: PPG produced products and residue from processing which contained chromium. PPG itself did not transport or dispose of chromium residue.

63. Did PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS
MINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL
P., or FSF COMPANY at any time own, possess, transport, or
dispose of chromium, chromium ore, chromium chemicals, chromium
compounds, chromium-related materials, or materials containing
chromium?

ANSWER: See Answer to Interrogatory No. 62.

64. Did any of the entities identified in answer to
interrogatories 19, 23, and 29 at any time own, possess, transport,
or dispose of chromium, chromium ore, chromium chemicals, chromium
compounds, chromium-related materials, or materials containing
chromium?

ANSWER: See Answer to Interrogatory No. 62.

65. Have you conducted any investigation into the sale,
distribution, disposal, transport, dumping, release, use and present
location of any chromium-related materials, regardless of their
source? If so:

- (a) state the date that the investigation began and ended;
- (b) identify all persons who conducted the investigation;
- (c) identify all persons and entities from whom any information was obtained during the course of the investigation; and

69. Describe all methods for the treatment, detoxification, fixation, transformation and recycling of chromium-related materials developed by or known to you.

ANSWER: PPG has produced to Exxon a Background Document from the EPA which describes the methods known to PPG. In addition, other technical documents produced by PPG may contain information responsive to this Interrogatory.

70. Describe all methods the clean up, containment or removal of chromium-related materials developed by or known to you.

ANSWER: PPG has produced to Exxon the Chromium Sites Study Committee Feasibility Study, which describes the methods known to PPG. In addition, other technical documents produced by PPG may contain information responsive to this Interrogatory.

71. Describe the role, if any, played by you with regard to the consideration, drafting, adoption, amendment or promulgation of regulations set forth at 40 C.F.R. Part 261, including but not limited to 40 C.F.R. §261.4(b)(6)(i), or proposed regulations concerning the subjects addressed by 40 C.F.R. Part 261.

ANSWER: PPG has no records indicating that it made comments with respect to 40 G.F.R. § 261.4(b)(6)(i). With respect to the remainder of Interrogatory No. 71, PPG objects to it as overbroad, burdensome, oppressive and not calculated to lead to the discovery of admissible evidence.

72. Identify all communications between any government agency and any person or entity, including but not limited to PPG INDUSTRIES, INC., other defendants in this action, and trade or other associations of which chromium producers or processors were or are members, concerning the consideration, drafting, adoption, amendment or promulgation of regulations set forth at 40 C.F.R. Part 261, including but not limited to 40 C.F.R. §261.4(b)(6)(i), or

proposed regulations concerning the subjects addressed by 40 C. F.R. Part 261.

ANSWER: None.

73. Describe all activities at the Chromium Sites which are known to you and which involve grading, filling, earth moving, stockpiling or removal of any material, and state the dates that those activities occurred.

ANSWER: PPG objects to this Interrogatory insofar as it seeks information relating to material other than chromium residue on the grounds that it is overly broad, unduly burdensome, oppressive and not relevant or reasonably calculated to lead to the discovery of admissible evidence. Without waiving this Objection, during the time period chromium ore was processed at the Garfield Avenue Site, chromium residue produced during this process was stored at the Garfield Avenue Site before being shipped off-site by various contractors. In addition, PPG is aware through discovery in the JCRA case of various activities performed by Lawrence Construction Co. at the Garfield Avenue Site related to earth-moving and grading in conjunction with construction activities at the Site after PPG sold the Site to Clif Associates in 1964. See also Answer to Interrogatory No. 34 and documents produced by PPG.

74. Describe the health risks or hazards and the environmental risks or hazards associated with exposure to chromium or chromium-related materials or the effects of such exposure on humans, animals, plants or the environment.

ANSWER: PPG objects to this Interrogatory insofar as it seeks information relating to material other than the chromium residue produced at the Garfield Avenue Site on the grounds that it is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving this Objection, PPG believes the health risks or hazards and the environmental risks or

hazards associated with exposure to chromium residue in soil are minimal.

Documents in PPG's possession related to health risks of occupational exposure to airborne hexavalent chromium have been produced to Exxon.

75. State the date on which you first became aware of the health risks or hazards associated with exposure to (a) chromium and (b) chromium-related materials.

ANSWER: (a) See Answer to Interrogatory No. 74. PPG was becoming aware of the risks of long-term occupational exposures to highly concentrated hexavalent chromium in the 1950's.

(b) PPG believes the health hazards associated with exposure to chromium residue in soil are minimal.

76. State the date on which you first became aware of the environmental risks or hazards associated with exposure to (a) chromium and (b) chromium-related materials.

ANSWER: See Answers to Interrogatory Nos. 74 and 75.

77. Identify any persons or entities who have studied or analyzed the potential or actual health or environmental risks or hazards associated with exposure to chromium or chromium-related materials, or who have conducted studies or tests regarding exposure to chromium and chromium-related materials or the effects of such exposure on humans, animals, plants or the environment.

ANSWER: The identity of such persons or identities, known to PPG, will be disclosed in the documents which PPG will make available for inspection and copying at a mutually agreeable time and location. R.4:l7-4(d).

78. Identify all reports, studies, test results or other communications that are or have ever been in your possession or custody concerning the potential or actual health or environmental risks or hazards associated with exposure to chromium or chromium-related materials, or the effects of exposure to chromium and chromium-related materials on humans, animals, plants or the environment, and state the date that each such report, study, test result or other communication first came into your possession or custody.

ANSWER: The documents requested will be made available for inspection and copying at a mutually agreeable time and location. R.4:17-4(d).

79. Describe all actions taken or contemplated by PPG INDUSTRIES, INC. to minimize the exposure of persons to (a) chromium and (b) chromium-related materials.

ANSWER: PPG objects to this Interrogatory insofar as it seeks information relating to material other than chromium residue produced at the Garfield Avenue Site on the grounds that it is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving this Objection, PPG issued safety equipment, including safety glasses or goggles, respirators and/or hard hats, to reduce worker exposure to chromium-containing dusts generated during processing within the Garfield Avenue Plant. With respect to chromium removal operations, PPG refers Exxon to the Administrative Consent Order executed between PPG and NJDEP on July 19, 1990 and interim remedial measures undertaken by PPG at certain sites, documents relating to which have been produced.

80. Describe all actions taken or contemplated by PPG INDUSTRIES, INC. to minimize the potential or actual health or

environmental risks or hazards associated with exposure to (a) chromium and (b) chromium-related materials.

ANSWER: See Answer to Interrogatory No. 79.

81. Describe all warnings or advice given or contemplated by PPG INDUSTRIES, INC. to any persons or entities regarding the potential or actual health or environmental risks or hazards associated with exposure to (a) chromium and (b) chromium-related materials.

ANSWER: See Objection to Interrogatory No. 79. Without waiving this objection, PPG has been unable to determine what warnings, instructions, representations or advice, if any, were given or made to the persons identified in Answer to Interrogatory No. 39 regarding the use, disposal, transport, dumping or release of chromium residue.

82. Describe all efforts made by PPG INDUSTRIES, INC. to warn or advise any persons or entities regarding the potential or actual health or environmental risks or hazards associated with exposure to (a) chromium and (b) chromium-related materials.

ANSWER: See Answer to Interrogatory No. 81.

83. Describe all warnings, instructions, representations or advice contemplated, given or made by PPG INDUSTRIES, INC. to any persons or entities regarding the use, disposal, transport, dumping or release of chromium-related materials.

ANSWER: See Objection to Interrogatory No. 79. Without waiving this Objection, PPG has been unable to determine what warnings, instructions, representations or advice, if any, were given or made to the persons identified in Answer to

Interrogatory No. 39 regarding the use, disposal, transport, dumping or release of chromium residue.

84. Describe all warnings or advise (sic) given or contemplated by PPG INDUSTRIES, INC. to plaintiff regarding the potential or actual health or environmental risks or hazards associated with exposure to (a) chromium and (b) chromium-related materials.

ANSWER: See Answer to Interrogatory No. 81.

85. Describe all warnings, instructions, representations or advise (sic) contemplated, given or made by PPG INDUSTRIES, INC. to plaintiff regarding the use, disposal, transport, dumping or release of chromium-related materials.

ANSWER: See Answer to Interrogatory No. 83.

86. Describe all actions taken by PPG INDUSTRIES, INC.:

- (a) in response to any Directives issued by the New Jersey Department of Environmental Protection concerning chromium-related materials, including but not limited to those dated December 2, 1988, December 22, 1989 and May 16, 1990;
- (b) in removing chromium-related materials from properties on which it exists;
- (c) in remediating properties on which chromium-related materials exist; and

(d) in conducting studies to determine the proper action to be taken in connection with the removal of chromium-related materials from properties on which it exists, or the remediation of those properties.

ANSWER: PPG objects to this Interrogatory insofar as it seeks a description of "all actions" taken by PPG on the grounds that it is overly broad, unduly burdensome, oppressive and seeks information that is protected from disclosure by the Attorney-Client Privilege and/or the Work-Product Doctrine. Without waiving these Objections, PPG will make available for inspection and copying at a mutually agreeable time and place documentation that will describe the actions taken by PPG and referred to in subparts (a) through (d). R.4:17-4(d). PPG specifically refers Plaintiff to the Administrative Consent Order signed between PPG and NJDEP on July 19, 1990.

87. Identify all employees or former employees of PPG INDUSTRIES, INC. who worked at the Chromium Sites or any other facilities at which chromium or chromium-related materials were present.

ANSWER: PPG objects to this Interrogatory as it may relate to facilities other than the Garfield Avenue Site on the grounds that it is unduly burdensome and seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving this Objection, PPG refers Exxon to the deposition of Chester Milczarek taken in the JCRA litigation. PPG also refers Exxon to the documents produced by PPG, which may contain further information responsive to this Interrogatory.

88. Identify all persons who have filed worker's compensation claims against PPG INDUSTRIES, INC., PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP.,

COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY alleging that they have incurred a physical or medical condition as a result of exposure to chromium or chromium-related materials, and for each such person:

- (a) state the date that his claim was filed;
- (b) identify the court in which his claim was filed;
- (c) state the date of the disposition of his claim;
- (d) describe the terms of the disposition of his claim.

ANSWER: PPG objects to this Interrogatory on the grounds that it is not relevant or reasonably calculated to lead to the discovery of admissible evidence.

89. Identify all persons or entities who have made claims or filed lawsuits against PPG INDUSTRIES, INC., PITTSBURGH PLATE GLASS CO., NATURAL PRODUCTS REFINING COMPANY, SOUTHERN ALKALI CORP., COLUMBIA SOUTHERN CHEMICAL CORP., or FSF COMPANY alleging that they have incurred a physical or medical condition or other damages as a result of exposure to chromium or chromium-related materials, and for each such person:

- (a) state the date that his claim was made and/or lawsuit was filed;
- (b) identify the court in which his lawsuit was filed, and state the docket number of the lawsuit;

- (c) state the date of the disposition of his claim or lawsuit;
- (d) describe the terms of the disposition of his claim or lawsuit.

ANSWER:

- (a) May 15, 1989;
- (b) see above;
- (c) pending;
- (d) not applicable.

Trum v. PPG Industries, Superior Court of New Jersey, Hudson County. See Answer to Interrogatory No. 55.

90. Identify and attach to your answers to these Interrogatories all insurance agreements under which any person or entity may be liable to satisfy part or all of any judgment that may be entered against you in this case or to indemnify or reimburse for payments made to satisfy any such judgment.

ANSWER: PPG objects to this Interrogatory on the grounds that it is overly burdensome. Without waiving this Objection, PPG has maintained and continues to maintain numerous policies which may be applicable to this lawsuit.

91. For each insurance agreement under which any person or entity may be liable to satisfy part or all of any judgment that may be entered against you in this case or to indemnify or reimburse for payments made to satisfy any such judgment:

- (a) identify the person or entity that may be liable under the agreement to satisfy part or all of any judgment that may be entered against

- you in this case or to indemnify or reimburse
for payments made to satisfy any such judgment;
- (b) state the date of the agreement;
 - (c) state the policy period;
 - (d) state the policy limits.

ANSWER: See Answer to Interrogatory No. 90.

92. State all facts upon which you rely in contending that the claims set forth by Exxon in the Complaint are barred by the statute of limitations since Exxon was aware of potential chromium contamination of its property in or before 1983.

ANSWER: Upon information, belief and preliminary investigation, Exxon knew or should have known that chromium contamination existed on its property before 1983. According to the Amended Complaint, quantities of residue mud were disposed of, dumped at, or released onto one or more of the Exxon Sites before 1983.

93. State all facts upon which you rely in contending that any claim set forth by Exxon is barred by Exxon's knowing and voluntary assumption of the risk in contracting for and accepting chromium residue as fill material at its facilities.

ANSWER: Upon information, belief, and preliminary investigation, if it is determined that a risk is associated with chromium residue, then Exxon was aware or should have been as aware that some risk may have been associated with the contracting for and accepting of chromium residue as fill material at its facilities as PPG.

94. State all facts upon which you rely in contending that any claim set forth by Exxon is barred by Exxon's contributory

negligence in contracting for and accepting chromium residue as fill material at its facilities.

ANSWER: Upon information, belief, and preliminary investigation, Exxon was contributorily negligent in contracting for and accepting chromium residue as fill material at its facilities by, *inter alia*, failing to properly: handle, dispose of, and/or contain the chromium residue; select, instruct and/or supervise its contractors; and/or investigate or determine any potential risks associated with the handling and/or use of chromium residue as fill material, some or all of which caused or contributed to the releases of these substances into the soils, surface water and/or air at or near the Exxon Sites.

95. State all facts upon which you rely in contending that any damage or injury suffered by Exxon, was caused by the intervening and/or superseding acts of third parties in supplying fill material to Exxon for use at its facilities, and not by the acts or omissions of PPG.

ANSWER: Upon information, belief and preliminary investigation, any damage or injury suffered by Exxon was caused by the intervening and/or superseding acts of third parties in supplying fill material to Exxon for use at its facilities in at least the following ways: the failure of truck drivers who transported chromium residue to Exxon facilities and/or other third parties to properly contain, handle and/or dispose of the chromium residue, and/or to ensure that no spills or other releases of chromium residue occurred.

96. Identify the "third parties" referenced in your Fifth Affirmative Defense.

ANSWER: Upon information, belief and preliminary investigation, such third parties included truck drivers who are presently specifically unidentified but who transported chromium residue to the Exxon Sites, and contractors engaged by Exxon to construct the improvements using chromium residue.

97. State all facts upon which you rely in contending that any disposal of chromium residue which was originated by PPG at the Garfield Avenue Site was undertaken in accordance with the then state-of-the-art, then accepted industrial practice and technology, then prevailing legal requirements, with the knowledge and acquiescence of New Jersey regulatory agencies, and with the express approval of Exxon.

ANSWER: Upon information, belief and preliminary investigation, the practice of using chromium residue as fill for construction projects was considered safe, and was widely accepted in the chromium and construction industries, as well as by state and local public authorities. In addition, there were no federal, state or local laws that prohibited or otherwise regulated the use of chromium residue as construction fill.

98. Fully describe the "state-of-the-art" referenced in your Sixth Affirmative Defense.

ANSWER: PPG objects to this Interrogatory insofar as it seeks information and opinions that are protected from disclosure by the Work-Product Doctrine. To the extent that this Interrogatory requests the content of expert opinions, PPG will furnish such information when and if such information is developed, as required by R.4:10-2. Without waiving this Objection, see Response to Interrogatory Nos. 97 and 99.

99. Fully describe the "industrial practice and technology" referenced in your Sixth Affirmative Defense.

ANSWER: See Objection to Interrogatory No. 98. Without waiving this Objection, fill serves as a material that can be compacted to provide a firm foundation. The utility of fill was determined through visual observations and not chemical analysis or other testing. Fill was to be of a quality that is free of any large extraneous materials having physical characteristics that will ensure

satisfactory performance. See also Response to Interrogatory No. 97.

100. Fully describe the "then prevailing legal requirements" referenced in your Sixth Affirmative Defense.

ANSWER: See Objection to Interrogatory No. 98. Without waiving this Objection, see Response to Interrogatory No. 97.

101. Identify the "New Jersey Regulatory Agencies" whom you allege had knowledge of and acquiesced in any disposal of chromium residue which was originated by PPG at the Garfield Avenue Site, as set forth in your Sixth Affirmative Defense.

ANSWER: Upon information, belief and preliminary investigation, Jersey City Redevelopment Authority possessed such knowledge, and the New Jersey Department of Health.

102. Identify all agents or employees of Exxon whom you contend approved of the disposal of chromium residue which was originated by PPG at the Garfield Avenue Site, as set forth in your Sixth Affirmative Defense.

ANSWER: Unknown at the present time.

103. Identify all communications, whether written or oral, that you contend constitute or are relevant to the approval by Exxon of any disposal of chromium residue which was originated by PPG at the Garfield Avenue Site, as set forth in your Sixth Affirmative Defense.

ANSWER: Unknown at the present time.

104. State all facts upon which you rely in contending that the damages allegedly sustained by Exxon were not caused by any substance, material or product produced, manufactured, sold or supplied by PPG.

ANSWER: Upon information, belief and preliminary investigation, the damages allegedly sustained by Exxon were caused by substances, materials or products produced, manufactured, sold or supplied by other parties, including Exxon and Defendants other than PPG. Upon information, belief and preliminary investigation, Allied-Signal, Inc. and Maxus Energy, Inc. or their predecessor entities produced, manufactured, sold or supplied chromium residue that was disposed of at the Exxon Sites. Upon information, belief and preliminary investigation, Exxon caused or contributed to the contamination at its Exxon Sites by its disposal of contaminants at such locations.

105. State all facts upon which you rely in contending that PPG exercised due care with respect to any chromium residue it originated.

ANSWER: Upon information, belief and preliminary investigation, PPG exercised due care and the activity of PPG in disposing of chromium residue was not abnormally dangerous for at least the following reasons: PPG temporarily stored chromium residue only on the Garfield Avenue Site; access to the area was restricted; the area was remote from locations that the public was likely to enter onto; processing of chromium residue minimized the chromium content; neither the surface water nor the groundwater in the area of the Garfield Avenue Site was used for potable purposes; PPG believes that other chromium processors stored chromium residue in a like manner; the Garfield Avenue Site was located in a heavily industrialized area and the temporary storage of used processed materials was appropriate to that area; any health or environmental threat posed by exposure to chromium residue is negligible; the Garfield Avenue Plant was a significant producer of chromium products at the time of its operations which had great utility to the public; the plant was a significant employer and contributor to the economy and the community; the operations of the plant were no more dangerous to the community than many of the industrial operations in the area; and the appropriate New

Jersey governmental agency approved the use of chromium residue for fill.

106. State all facts upon which you rely in contending that the activity of PPG in disposing of chromium residue, as alleged in the Complaint, was not abnormally dangerous activity because a high degree of risk of harm to persons, land or chattels of others did not exist, there was no likelihood that harm resulting from the activity would be great, the activity was a matter of common usage in the industry and trade in which PPG was engaged, the activity was appropriate to the place where it was carried on and the value of the activity outweighed any dangerous attributes of the activity.

ANSWER: Upon information, belief and preliminary investigation, PPG exercised due care and the activity of PPG in disposing of chromium residue was not abnormally dangerous for at least the following reasons: PPG temporarily stored chromium residue only on the Garfield Avenue Site; access to the area was restricted; the area was remote from locations that the public was likely to enter onto; processing of chromium residue minimized the chromium content; neither the surface water nor the groundwater in the area of the Garfield Avenue Site was used for potable purposes; PPG believes that other chromium processors stored chromium residue in a like manner; the Garfield Avenue Site was located in a heavily industrialized area and the temporary storage of used processed materials was appropriate to that area; any health or environmental threat posed by exposure to chromium residue is negligible; the Garfield Avenue Plant was a significant producer of chromium products at the time of its operations which had great utility to the public; the plant was a significant employer and contributor to the economy and the community; and the operations of the plant were no more dangerous to the community than many of the industrial operations in the area; and the appropriate New Jersey governmental agency approved the use of chromium residue for fill.

107. State all facts upon which you rely in contending that PPG owed no duty to Exxon with respect to the subject matter of the Complaint which could be violated and which could give rise to a cause of action against PPG.

ANSWER: PPG's chromium residue, insofar as shown to have been transported by the Bayonne Site, went to Exxon, which was at least as knowledgeable of the properties of chromium as PPG.

108. State all facts upon which you rely in contending that PPG did not create any condition which caused a substantial and unreasonable interference with Exxon's use and enjoyment of its land which could lead to a cause of action in trespass.

ANSWER: Upon information, belief and preliminary investigation, any disposal of chromium residue originated by PPG has not interfered with the business operations of Exxon at the Exxon Sites. To the extent that such operations have been interfered with, such interference was caused by the acts of other persons, including Exxon's decision to use the chromium residue as construction fill.

109. State all facts upon which you rely in contending that, assuming that a substantial and unreasonable interference with the use and enjoyment of Exxon of its land occurred, as alleged in the Complaint, PPG had no knowledge of that interference and no knowledge of any harm to Exxon's interests.

ANSWER: PPG is unaware that any disposal of chromium residue originated by PPG has caused harm to or adversely affected Exxon's business operations at the Exxon Sites.

110. State all facts upon which you rely in contending that to the extent that a substantial and unreasonable interference

with Exxon's use and enjoyment of its land occurred, as alleged in the Complaint, that interference resulted from and was proximately caused by the acts of Exxon or persons other than PPG over whom PPG exercised no control.

ANSWER: Upon information, belief and preliminary investigation, any such interference resulted from and was proximately caused by materials produced, sold, supplied or transported by, or acts or omissions of, other parties, including Exxon, Defendants other than PPG, and other persons or entities.

111. Identify the "persons other than PPG over whom PPG exercised no control" referenced in your Fifteenth Affirmative Defense.

ANSWER: Upon information, belief and preliminary investigation, these persons included other Defendants in this lawsuit and various contractors who transported chromium residue to the Exxon Sites or were hired by Exxon to construct improvements to the land.

112. State all facts upon which you rely in contending that Exxon has not incurred any expenses or costs for study or remediation, and is under no order or direction to do so.

ANSWER: PPG is unaware of Exxon incurring any expenses or costs for study or remediation or of any order or direction to do so.

113. State all facts upon which you rely in contending that Exxon is not entitled to declaratory relief under the New Jersey Declaratory Judgment Act, N.J.S.A. 2A:16-50 et seq. because there is no actual controversy between Exxon and PPG.

ANSWER: PPG is unaware of any order, directive or necessity for Exxon to take any action with regard to the Bayonne Site.

114. State all facts upon which you rely in contending that if PPG is liable to Exxon, as alleged in the Complaint and which PPG denies, that PPG's liability is passive, secondary and vicarious whereas the liability of the other defendants, if any, is active, primary and direct.

ANSWER: Upon information, belief and preliminary investigation, the damages complained of are due primarily to the acts or omissions of other Defendants and not PPG.

115. Identify the person or persons who have answered these Interrogatories on behalf of PPG INDUSTRIES, INC.

ANSWER: David C. Cannon, Jr., Esquire; George E. McGrann, Esquire; Peter T. Stinson, Esquire; and Leonard Bryant, PPG Industries, Inc., Pittsburgh, PA.

116. Pursuant to R.4:17-4(a), designate which of the information set forth in answer to each of the preceding Interrogatories is not within the personal knowledge of the person or person(s) answering these interrogatories on behalf of PPG INDUSTRIES, INC., and as to that information:

- (a) state the name and address of every person from whom it was received; and
- (b) if the source of the information is documentary, identify the documents which contain that information, and state their location.

ANSWER: (a)-(b) These Interrogatories were answered by reference to thousands of pages of documents collected over an eight year period with respect to allegations of chromium contamination in Hudson County. PPG is unable to specify each document utilized in these answers. Moreover, since the events which are the subject of this case occurred, in the main, over thirty years ago, PPG is unable to specify individuals with personal knowledge other than by reference to names on the documents produced to Exxon.

Respectfully submitted,
ROBINSON, WAYNE & LaSALA

By: Joseph F. Lagrotteria, Esq.

DICKIE, McCAMEY & CHILCOTE, P.C.

By: George E. McGrann, Esq.

AFFIDAVIT

I, David C. Gallagher, hereby certify under oath that I am Senior Counsel for PPG INDUSTRIES, INC., and that the information set forth in the foregoing Answers to Interrogatories by PPG Industries, Inc. is true to the best of my information, knowledge and belief.

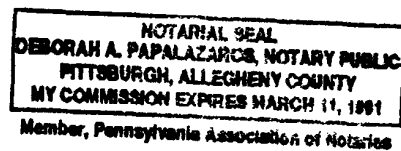
By David C. Gallagher
David C. Gallagher

COMMONWEALTH OF PENNSYLVANIA)
COUNTY OF ALLEGHENY) ss:

SWORN to and SUBSCRIBED before me this 21st day of September, 1990.

Deborah A. Papalazaros
Notary Public

My commission expires:



PPGNJC0030166

PPG-SMITH-070467

PPGNPR0088295

Attachment 3

NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND THE
ADMINISTRATOR OF THE NEW JERSEY
SPILL COMPENSATION FUND,

Plaintiffs,

v.

HONEYWELL INTERNATIONAL, INC.,
OCCIDENTAL CHEMICAL CORPORATION
AND PPG INDUSTRIES, INC.,

Defendants,

v.

CITY OF JERSEY CITY, JERSEY CITY
MUNICIPAL UTILITIES AUTHORITY,
JERSEY CITY INCINERATOR AUTHORITY,
and NEW JERSEY TURNPIKE AUTHORITY,

Third Party Defendants.

SUPERIOR COURT OF NEW JERSEY
LAW DIVISION - HUDSON COUNTY

CIVIL ACTION NO.: HUD-C-77-05

PARTIAL CONSENT JUDGMENT
CONCERNING THE PPG SITES

FILED

JUN 26 2009

THOMAS P. OLIVERI, P.J. Ch.

This matter was opened to the Court by Anne Milgram, Attorney General of New Jersey, Anna Lascurain, Deputy Attorney General appearing, attorney for plaintiffs New Jersey Department of Environmental Protection and the Administrator of the New Jersey Spill Compensation Fund, and Third Party Defendant City of Jersey City ("Jersey City"), through its attorney Corporation Counsel William C. Matsikoudis, and Defendant PPG Industries, Inc. ("PPG"), through its attorney Joseph Lagrotteria appearing. These Parties having amicably resolved certain elements of their dispute before trial without any admission of liability, agree as follows:

I. PARTIES BOUND

1. This Consent Judgment applies to, and is binding upon, Plaintiffs New Jersey Department of Environmental Protection ("DEP", as defined below), and the Administrator of the New Jersey Spill Compensation Fund ("Administrator", as defined below) (collectively, "the

Plaintiffs”), PPG Industries, Inc. (“PPG” or the “Settling Defendant”, as defined below), and the Third Party Defendant City of Jersey City. Any change in ownership or corporate or legal status of PPG, as well as any change in, or transfer of, the authority or responsibility of DEP, the Administrator, or Jersey City, shall in no way enhance or abridge their respective rights and obligations under this Consent Judgment.

II. DEFINITIONS

2. Unless otherwise expressly provided, terms used in this Consent Judgment that are defined in the Spill Compensation and Control Act, N.J.S.A. §§ 58:10-23.11 to -23.24 (“the Spill Act”) or in the regulations promulgated under the Spill Act, shall have their statutory or regulatory meaning. To the extent not defined, and unless otherwise expressly provided, terms used in this Consent Judgment that are defined in the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601 to 9675 (“CERCLA”) or in any regulations promulgated pursuant thereto, shall have the meaning given therein.

Whenever the terms listed below are used in this Consent Judgment, the following definitions shall apply:

a. “1990 ACO” shall mean the Administrative Consent Order entered on July 19, 1990 between the DEP, as defined below, and PPG, as defined below (attached hereto as Appendix A), and the letter agreements of August 2, 1990, September 5, 1990, and November 29, 1990, adding additional sites to the 1990 ACO (attached hereto as Appendix B).

b. “Administrator” shall mean the Administrator of the New Jersey Spill Compensation Fund, who is appointed pursuant to N.J.S.A. § 58:10-23.11j., and any successor.

c. “And” and “or” shall mean and/or such that “and” and “or” are interchangeable.

d. “Appendix” shall mean an appendix to this Consent Judgment.

e. “Applicable Remedial Provisions” shall mean all applicable statutes, regulations and laws including the DEP Commissioner’s Chromium Policy as it now exists or may be adopted in the future.

f. “Assistant Commissioner” shall mean the DEP Assistant Commissioner of Site Remediation, and/or her successor, or such person holding a similar position in the future if that position no longer exists.

g. “Assistant Director” shall mean the DEP Assistant Director of Site Remediation, or such person holding a similar position in the future if that position no longer exists.

h. “CERCLA” shall mean the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601-9675.

i. “CCPW” shall mean chromate chemical production waste, a by-product generated from the production of sodium bichromate, including, but not limited to, chromium ore processing residue.

j. “Consent Judgment” shall mean this Partial Consent Judgment.

k. “Day” shall mean a calendar day unless expressly stated to be a working day. “Working day” shall mean a day other than a Saturday, Sunday, or State or federal holiday. In computing time under this Consent Judgment, where the last day would fall on a Saturday, Sunday, or State or federal holiday, time shall run until the close of business of the next working day.

l. “DEP” shall mean the New Jersey Department of Environmental Protection and any successor department or agency of the State.

m. “Effective Date” shall mean the effective date of this Consent Judgment provided for in Paragraph 65.

- n. "First Amended Complaint" shall mean the First Amended Complaint filed in this lawsuit by Plaintiffs on May 9, 2005, in the Superior Court of New Jersey, Law Division, Hudson County, Civil Action No. HUD-C-77-05.
- o. "Grace Period Rule" shall mean those regulations defined by §§ N.J.A.C. 7:26C-10.1 to -10.9.
- p. "Hazardous Substances" shall mean all substances identified in the definitions of "hazardous substances" set forth in the Spill Act, N.J.S.A. § 58:10-23.11b. or CERCLA, 42 U.S.C. § 9601(14).
- q. "Jersey City" shall mean the City of Jersey City.
- r. "Master Schedule" shall be the schedule, established and updated by the Site Administrator taking into consideration Applicable Remedial Provisions, at the time, for the accomplishment of the remediation of the PPG Sites.
- s. "Co-Owner/Developer" shall mean 900 Garfield Avenue, LLC, its successors and assigns, the current co-owner of a portion of Site 114, the Garfield Avenue Site, and the developer of the Garfield Avenue Site. Any reference to Co-Owner/Developer in this Consent Judgment shall be limited to the Garfield Avenue Site.
- t. "Paragraph" shall mean a portion of this Consent Judgment identified by an Arabic numeral.
- u. "Parties" shall mean ~~DEP, Jersey City, and PPG.~~
- v. "Party" shall mean DEP, Jersey City, or PPG.
- w. "Plaintiffs" shall mean the two plaintiffs in this lawsuit: DEP and the Administrator.

x. “PPG” shall mean PPG Industries, Inc., a corporation organized and existing under the laws of the Commonwealth of Pennsylvania and having a principal place of business at One PPG Place, Pittsburgh, Pennsylvania 15222, and any successors or assigns.

y. PPG Sites shall mean the sixty-one (61) residential and non-residential sites listed in Attachment One of the 1990 ACO, Attachment Two of the 1990 ACO, and Appendix B to this Consent Judgment: Additional Sites Added to the 1990 ACO By Agreement with DEP, including the so-called Orphan Sites set forth in Appendix B.

z. “RCRA” shall mean the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 to 6992k.

aa. “Section” shall mean a portion of this Consent Judgment identified by a Roman numeral.

bb. “Settling Defendant” shall mean defendant PPG.

cc. “Site Administrator” shall mean the person appointed as Site Administrator pursuant to Section XVI and charged with the duties set forth therein.

dd. “Spill Fund” shall mean the New Jersey Spill Compensation Fund established pursuant to N.J.S.A. § 58:10-23.11i.

ee. “Submittal” shall mean any document submitted by PPG to DEP, the Technical Consultant, Jersey City, the Co-Owner/Developer, and the Site Administrator regarding the work performed or to be performed at any PPG Site.

ff. “Technical Consultant” shall mean the person(s) appointed as Technical Consultant(s) pursuant to Section XVII.

III. JURISDICTION

1. This Court has jurisdiction over the subject matter of this action pursuant to the Spill Act and the common law of the State of New Jersey. This Court also has personal jurisdiction over the Parties, solely for the purposes of the First Amended Complaint and this Consent Judgment. The Parties waive all objections and defenses they may have to jurisdiction of the Court, or to venue in this County.

IV. BACKGROUND

2. Beginning as early as 1924, a chrome production facility was operated at and/or near 880 Garfield Avenue, Jersey City, Hudson County, New Jersey ("Garfield Avenue Site"). In August 1954, PPG acquired this chrome production facility and operated it through September 1963. Prior to and during PPG's ownership and operation of this chrome production facility, CCPW was generated as a by-product of the production of sodium bichromate. Predecessors of PSE&G owned and operated a coal gasification facility/ manufactured gas facility at Garfield Avenue that discharged hazardous substances on Garfield Avenue, and PSE&G is therefore allegedly responsible for remediation of the property.

3. On July 19, 1990, DEP, and PPG entered into the 1990 ACO.

4. Pursuant to the 1990 ACO, PPG has remediated forty-seven (47) sites in the 1990 ACO, and has performed some remediation at ten (10) of the fourteen (14) remaining sites listed in the 1990 ACO and in the amendments to the 1990 ACO (Appendix B). As of the Effective Date, PPG has received No Further Action determination letters from DEP on forty-seven (47) sites in the 1990 ACO.

5. On May 9, 2005, Plaintiffs filed the First Amended Complaint against PPG and others asserting Spill Act statutory claims and common law strict liability, nuisance, and

negligence claims, arising out of the generation and disposal of CCPW at sites in Hudson and Essex counties, New Jersey, including the PPG Sites.

6. PPG subsequently filed responsive pleadings in which it denies liability, and asserts various defenses to the allegations contained in the First Amended Complaint.

7. The Parties recognize, and the Court by entering this Consent Judgment finds, that the Parties have negotiated this Consent Judgment in good faith, that the implementation of this Consent Judgment will expedite the remediation of the PPG Sites and avoid continued, prolonged and complicated litigation among the Parties, and that this Consent Judgment is fair, reasonable, and in the public interest.

THEREFORE, with the consent of the Parties, it is hereby:

ORDERED and ADJUDGED:

V. REMEDIATION GOAL

8. It is the goal of the Parties entering into this Consent Judgment, based upon current Applicable Remedial Provisions, to remediate the soils and sources of contamination at the PPG Sites as expeditiously as possible with a five (5)-year goal for completion in accordance with the Master Schedule. The PPG Sites shall be remediated in a manner that permits redevelopment consistent with the redevelopment plan adopted by Jersey City. PPG shall remediate groundwater in accordance with Applicable Remedial Provisions.

9. A judicially enforceable Master Schedule for all PPG sites will be established by the Site Administrator based upon input from Jersey City (for Jersey City sites), DEP and PPG with priority given to existing residential locations where CCPW is found pursuant to this Consent Judgment. Prioritization for non-residential sites will be established by the Site Administrator with input from Jersey City, DEP and PPG for sites located in Jersey City.

VI. EFFECT ON 1990 ACO

10. To the extent not explicitly superseded or nullified in this Consent Judgment, the provisions of the 1990 ACO shall remain in effect. If a conflict arises between the terms of the Consent Judgment and terms of the 1990 ACO, the terms of this Consent Judgment shall govern.

VII. SETTLING DEFENDANT'S COMMITMENTS

11. PPG shall continue to remediate the PPG Sites under the terms of the 1990 ACO, this Consent Judgment, and the Applicable Remedial Provisions. If a conflict arises with respect to remedial standards between the provisions of the Applicable Remedial Provisions and the provisions of the 1990 ACO, the Applicable Remedial Provisions shall govern.

12. PPG shall make payments as follows into the Site Administrator's Fund established pursuant to Paragraph 51.

- a. PPG shall make an Initial Payment of two hundred thousand dollars (\$200,000) into the Site Administrator's Fund within thirty (30) days after the Effective Date.
- b. From that date forward, whenever the amount of the Site Administrator's Fund drops below seventy-five thousand dollars (\$75,000), the Site Administrator shall notify PPG pursuant to the process set forth in Paragraph 49. Within thirty (30) days of receipt of such notification, PPG shall pay one hundred twenty-five thousand dollars (\$125,000) into the Site Administrator's Fund.
- c. This notification and payment practice will continue for two (2) years from the Effective Date. After this two (2)-year period, PPG shall replenish the Site Administrator's Fund only upon a written amendment to this Consent Judgment, as set forth in Section XXVII.

VIII. JERSEY CITY ENVIRONMENTAL TRUST FUND

13. PPG shall pay to Jersey City, according to the terms set forth below, the amount of one million one hundred fifty thousand dollars (\$1,150,000) to fund an environmentally beneficial project such as the acquisition of property for open space or the development and/or

improvement of a public park (with preference given to the Bergen-Lafayette and Greenville sections of Jersey City) by submitting via wire transfer made payable to the Environmental Trust Fund of Jersey City. This payment shall be made in the following installments which may be tied to certain events in the remedial process as determined by Jersey City and PPG, but payment shall nonetheless be made no later than the dates set forth as follows:

- a. Two hundred eighty- seven thousand five hundred dollars (\$287,500) on August 1, 2009;
- b. Two hundred eighty- seven thousand five hundred dollars (\$287,500) on August 1, 2010;
- c. Two hundred eighty- seven thousand five hundred dollars (\$287,500) on August 1, 2011; and
- d. Two hundred eighty- seven thousand five hundred dollars (\$287,500) on August 1, 2012.

14. PPG shall also pay to Jersey City, according to the terms set forth below, the amount of three hundred fifty thousand dollars (\$350,000) to fund costs related to Jersey City's oversight of this Consent Judgment, by submitting via wire transfer made payable to the Environmental Trust Fund of Jersey City. This payment shall be made in the following installments:

- a. Seventy thousand dollars (\$70,000) on January 1, 2010;
- b. Seventy thousand dollars (\$70,000) on January 1, 2011;
- c. Seventy thousand dollars (\$70,000) on January 1, 2012;
- d. Seventy thousand dollars (\$70,000) on January 1, 2013; and
- e. Seventy thousand dollars (\$70,000) on January 1, 2014.

15. By signing this Consent Judgment, PPG certifies that it is not required and has no liability under any federal, state or local law or regulation, or pursuant to any agreements or orders of any court to perform, fund, or develop the projects identified in Paragraph 13.

16. In consideration for these payments, Jersey City hereby releases PPG from any and all claims it has or could have against PPG for any chrome site, including any claims for reparations or lost tax revenue.

IX. DEP, JERSEY CITY, AND THE ADMINISTRATOR'S COVENANTS

17. In consideration of the remediation PPG has completed, the remediation PPG shall perform and the payments to be made and other obligations incurred by PPG under this Consent Judgment, and subject to the reservations in Section X, Plaintiffs and Jersey City covenant not to sue and agree not to assert any claim against PPG or to take any further administrative, legal or equitable action available to Plaintiffs and Jersey City regarding any discharge or release of Hazardous Substances prior to the Effective Date at or from the PPG Sites, or any imminent and substantial endangerment posed by any discharge or release of Hazardous Substances at or from the PPG Sites prior to the Effective Date, under the Spill Act, CERCLA, RCRA, common law, and any other local law or state or federal statute, regulation, or other authority. To the extent this Paragraph supersedes portions of Paragraph 106 of the 1990 ACO, those portions are superseded and nullified. The remaining portions of Paragraph 106 of the 1990 ACO shall remain in effect.

18. The covenant contained in Paragraph 17, above, is conditioned upon the Settling Defendant's satisfactory performance of its other obligations under this Consent Judgment, and extends only to the Settling Defendant, and not to any other person.

X. DEP, JERSEY CITY, AND ADMINISTRATOR'S RESERVATIONS

19. Nothing in this Consent Judgment is intended to bar or release any claims, causes of action or demands in law or equity by Plaintiffs and Jersey City against any person not a signatory to this Consent Judgment for any liability such other person may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, disposal, discharge or release of any Hazardous Substances at, to, or from the PPG Sites.

20. The covenant contained in Paragraph 17 above does not pertain to any matters other than those expressly stated. Plaintiffs and Jersey City reserve, and this Consent Judgment is without prejudice to, all rights against the Settling Defendant concerning all other matters, including the following:

- a. Claims based on the Settling Defendant's failure to satisfy any term or provision of this Consent Judgment;
- b. Claims based on new or unknown conditions at the PPG Sites that indicate that the remediation is not protective of human health or the environment;
- c. Liability arising from the Settling Defendant's past, present, or future discharge or unsatisfactory storage or containment of any Hazardous Substances at locations other than the PPG Sites;
- d. Liability for any future unsatisfactory storage or containment of any Hazardous Substance at the PPG Sites, other than approved or ordered by plaintiff DEP;
- e. Criminal liability;
- f. Liability for any violation of federal or state law that occurs during or after the remediation of the PPG Sites;
- g. Liability for any claim by a third party pending or filed on or after the effective date of this Consent Judgment against the Spill Fund or the Sanitary Landfill Fund concerning the PPG Sites.

21. Notwithstanding the covenant contained in Paragraph 17 above, DEP reserves the right to direct PPG to take or arrange for the taking of any and all additional measures at the PPG

Sites should DEP determine, in its sole discretion, that a condition of immediate environmental concern ("IEC"), as that term is defined in N.J.A.C. § 7:26E-1.8, exists at or as a result of the PPG Sites, or that it is necessary to conduct an "emergency response action," as defined by N.J.A.C. § 7:1J-1.4, at the PPG Sites. PPG shall, pursuant to N.J.A.C. § 7:26C-4.2, retain the right to respond to a directive issued by DEP under this paragraph, and has the right to request that the Site Administrator address the issue with the Parties.

XI. SETTLING DEFENDANT'S COVENANTS

22. PPG covenants not to oppose entry of this Consent Judgment by this Court, or to challenge any provision of this Consent Judgment, to the extent this Consent Judgment remains unmodified.

23. PPG further covenants, subject to Section XII, not to sue or assert any claim or cause of action against Jersey City or the State of New Jersey, including any department, agency or instrumentality of the State, concerning the PPG Sites.

XII. SETTLING DEFENDANT'S RESERVATIONS

24. Nothing in this Consent Judgment is intended to bar or release any claims, causes of action or demands in law or equity by PPG against any Person not a signatory to this Consent Judgment.

25. PPG reserves, and this Consent Judgment is without prejudice to: (i) claims challenging actions of Jersey City or DEP otherwise available under New Jersey law, including but not limited to actions or decisions brought pursuant to R. 2:2-3(a)(2); and (ii) future claims against Jersey City or the State of New Jersey, subject to the New Jersey Tort Claims Act, N.J.S.A. §§ 59:1-1 to -12-3; the New Jersey Contractual Liability Act, N.J.S.A. §§ 59:13-1 to 13-10; the New Jersey Constitution, N.J. Const. art. VIII, §2, ¶2; or any other applicable provision

of law, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any Jersey City or State of New Jersey employee while acting within the scope of his/her office or employment under circumstances where Jersey City or the State of New Jersey, if a private person, would be liable to the claimant. Any such claim, however, shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a Jersey City or State of New Jersey employee as that term is defined in N.J.S.A. § 59:1-3; nor shall any such claim include a claim based on DEP's selection of the remediation or DEP's oversight or approval of the Settling Defendant's plans or activities relating to the remediation. The foregoing applies only to claims that the Settling Defendant may bring pursuant to any statute other than the Spill Act, and for which the waiver of sovereign immunity is found in a statute other than the Spill Act.

26. Nothing in this Consent Judgment shall be deemed to constitute preauthorization of a claim against the Spill Fund within the meaning of N.J.S.A. § 58:10-23.11k or N.J.A.C. § 7:1J.

XIII. FINDINGS AND ADMISSIONS OF LIABILITY

27. By entering into this Consent Judgment, PPG does not admit any liability arising out of the transactions or occurrences alleged in the First Amended Complaint and 1990 ACO. Nothing contained in this Consent Judgment shall be considered: (i) an admission of any liability arising out of the transactions or occurrences alleged in the First Amended Complaint and 1990 ACO; and/or (ii) an admission of any issue of fact or law by PPG, or a finding by Plaintiffs, Jersey City, or any person not a signatory to this Consent Judgment of any fault or liability of PPG under any applicable laws or regulations.

XIV. EFFECT OF SETTLEMENT; CONTRIBUTION PROTECTION

28. Nothing in this Consent Judgment shall be construed to create any rights in, or grant any cause of action to, any Person not a party to this Consent Judgment.

29. PPG expressly reserves all rights, including any rights to contribution, defenses, claims, demands, and causes of action that PPG may have concerning any matter, transaction, or occurrence concerning the PPG Sites against any person not a party to this Consent Judgment.

30. It is further the intent of the Parties that by entering into this Consent Judgment, PPG shall be protected to the greatest extent possible from any contribution claim a person not a party to this Consent Judgment may assert relating to the PPG Sites, including the full protection of the Spill Act, N.J.S.A. § 58:10-23.11f.(2)(b).

31. The Parties agree that this Consent Judgment resolves any liability of PPG to the Plaintiffs and Jersey City under CERCLA for all response actions and costs of such actions with respect to the PPG Sites, and further that this Consent Judgment, upon approval by the Court, embodies a “judicially approved settlement” as those terms are used in Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), as amended, and that PPG is entitled to contribution from any Person not a party to this Consent Judgment to the extent provided thereby.

32. Plaintiffs and Jersey City agree that they will not oppose any motion or application by PPG in any subsequent action in which PPG seeks the contribution protection that this Consent Judgment is intended to provide.

33. The Parties agree, and by entering this Consent Judgment this Court finds, PPG is entitled, as of the Effective Date, to protection from contribution actions or claims for all matters addressed in this Consent Judgment.

34. PPG also agrees that with respect to any suit or claim for contribution brought

against it for matters addressed in this Consent Judgment, it will notify Plaintiffs, in writing, within 20 working days of service of a complaint on it seeking contribution.

35. Plaintiffs enter into this Consent Judgment pursuant to the police powers of the State of New Jersey for the enforcement of the laws of the State of New Jersey and the protection of the public health and safety and the environment.

36. By entering into this Consent Judgment, the Plaintiffs are restraining and abating acts or conditions that the Plaintiffs allege contributed to or were contributing to activities that present an imminent and substantial endangerment at the PPG Sites, and Plaintiffs and Settling Defendant agree that this Consent Judgment is, *inter alia*, the result of diligent prosecution of the Plaintiffs' claims associated with this alleged imminent and substantial endangerment at the PPG Sites.

37. This Consent Judgment shall be filed with the Court, and has already been subject to a thirty (30) day public notice and comment period in accordance with N.J.S.A. § 58:10-23.11e2 and Section 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2).

38. Settling Defendant has published legal notices in three newspapers of general circulation for Hudson and Essex Counties for a period of not less than three days that shall contain the following information:

- a. The name and location of the PPG Sites, including the PI number, the street address, the municipality, and the county;
- b. The Parties to the settlement; including PPG's full corporate name and mailing address; and
- c. A summary of the terms of the settlement.

Public notice was also published in the New Jersey Register.

XV. SUBMITTAL, REVIEW, AND DECISION-MAKING

39. The process for remediating the PPG Sites set forth in this Section shall be the method for conducting remediation of the PPG Sites pursuant to the submissions set forth in the 1990 ACO.

40. The Technical Consultant's review, the Site Administrator's review, and DEP's review, approval, and decision-making with regard to a Submittal shall be performed under the 1990 ACO and the Applicable Remedial Provisions.

41. PPG shall submit copies of any Submittal to the Site Administrator, DEP, Jersey City, and the Co-Owner/Developer. Jersey City and the Co-Owner/Developer shall review each Submittal and provide recommendations to DEP and the Technical Consultant, the Site Administrator, and PPG within thirty (30) days after receipt or such other timeframe set forth in the Master Schedule. The Site Administrator shall provide a copy of the Submittal to the Technical Consultant and establish a timeframe for review of the Submittal and development of recommendations to the DEP.

42. In reviewing any PPG Submittal, the Technical Consultant shall work independently, but shall confer or meet with DEP whenever it has questions about the Applicable Remedial Provisions. The Technical Consultant may confer or meet with DEP and PPG together whenever he or she has questions about the Submittal. At the request of DEP and/or PPG, a joint meeting(s) shall be held with the Technical Consultant. If further requested by DEP and/or PPG, the Site Administrator will participate in the joint meeting(s). The Technical Consultant shall keep the Site Administrator informed of contacts with DEP and PPG. Once the Technical

Consultant completes his or her review of the Submittal, the Technical Consultant shall present his or her findings to DEP.

43. If DEP and the Technical Consultant believe that additional work is needed on the Submittal, DEP and the Technical Consultant shall so inform PPG and the Site Administrator. If DEP, PPG and/or the Technical Consultant so request, a meeting(s) shall be held with the Site Administrator. At the end of this process, the Site Administrator shall either inform PPG that the Submittal is acceptable to DEP, or shall inform PPG of the deficiencies.

44. In the event that the Site Administrator informs PPG of deficiencies, the DEP and PPG shall attempt to resolve all disagreements expeditiously and informally in good faith negotiations. The Site Administrator shall participate in these discussions if requested by DEP or PPG. The period for informal negotiations shall not exceed twenty (20) days from the time PPG is informed of deficiencies by the Site Administrator.

45. DEP review of Submittals shall be carried out by the Assistant Director in order to assure expeditious DEP action. The Assistant Director shall consider the work of the Technical Consultant as if the Technical Consultant was a case manager at the DEP. Final decisions shall be made by the Assistant Commissioner. DEP shall retain the authority for all regulatory decisions.

46. PPG may either modify the Submittal as requested by the Site Administrator or seek review of the decision pursuant to R. 2:2-3.

XVI. SITE ADMINISTRATOR'S DUTIES AND RESPONSIBILITIES

47. As soon as reasonably possible after the Effective Date, the Parties shall provide recommendation(s) to the Court of a candidate or candidates to serve as Site Administrator. All candidate(s) for Site Administrator shall sign a confidentiality agreement, provide a Curriculum

Vitae and Statement of Qualifications, and disclose any potential conflicts of interest they may have with the Parties. For any and all potential candidates submitted to the Court, the Parties shall provide information on any potential conflicts of interest and whether the Parties are willing to waive the conflict(s). The Court shall then appoint, a Site Administrator from the list of a candidate or candidates provided to the Court, considering the recommendations made by the Parties.

48. After appointment of the Site Administrator, a mutually acceptable retainer agreement shall be prepared by PPG and DEP and submitted to the Court for entry setting forth the terms of the Site Administrator's retention, including, but not limited to, reasonable fee and expense provisions.

49. The powers and purpose of the Site Administrator shall be to:

- a. Establish a judicially enforceable schedule for the filing of Submittals and the Technical Consultant's review of Submittals for the PPG Sites, to establish the Master Schedule, and to hold regular meetings with PPG, Jersey City, the Co-Owner/Developer, and the DEP to ensure that good faith efforts are being made to meet the goals established in the Master Schedule;
- b. Hire experts and/or consultants to assist the Site Administrator in reviewing any Submittal and in resolving any issues raised to the Site Administrator by the Parties as permitted by this Consent Judgment. For any potential expert and consultant candidate, the candidate shall provide information to the Parties about any potential conflict of interest. After review of the potential conflict, the Parties shall inform the Site Administrator if they are willing to waive the conflict;
- c. Consult on the hiring of a Technical Consultant and hire the Technical Consultant in accordance with the procedures set forth in this Consent Judgment whose responsibilities shall be those set forth in Section XVII;
- d. Oversee and disburse reasonable fees and expenses from the Site Administrator's Fund for the purposes set forth in Paragraph 51;
- e. Notify PPG of the status of the amount in the Site Administrator's Fund when necessary, pursuant to Paragraph 12;

- f. Attend and participate in community or public meetings to discuss proposed remedial measures at the PPG Sites; and
- g. Review previous and ongoing health studies concerning the health impacts of chromium in Hudson County and consult with experts in the field and, if necessary, to recommend a protocol for a future medical study (health exposure study), that would monitor the people living within the vicinity of the Garfield Avenue Site to ascertain chromium exposure risks within (6) months of the entry of this Consent Judgment. All parties reserve the right to challenge any such protocol established pursuant to this paragraph (g) and/or whether any such medical study (health exposure study) is necessary and/or should be implemented. Such a challenge would be heard by the Court in a summary proceeding with the opportunity for all parties to present expert reports/testimony and to conduct discovery related to expert reports/testimony. The evidence of any such study and any results related thereto shall not be deemed as any type of admission nor be used against any party in any proceeding whatsoever.

50. The term of the Site Administrator shall be for two (2) years from the Effective Date of this Consent Judgment, with the option for renewal of the Site Administrator for subsequent two (2)-year terms thereafter. One hundred (100) days prior to the expiration of the Site Administrator's initial two (2)-year term, and any subsequent terms, the Parties shall arrange for an in-person conference among the Parties to occur at least sixty (60) days prior to the expiration of the initial two (2)-year term. If the Parties agree at the meeting that the Site Administrator's retention should be extended for another two (2)-year term, the Parties shall draft a written agreement setting forth the two (2)-year term extension and terms thereof. At the conclusion of any two (2)-year term, the Site Administrator shall pay any remaining costs payable under Paragraph 51 that were incurred during that two (2)-year term as expeditiously as possible, and shall inform the Parties ninety (90) days after the conclusion of any two (2)-year term if the Site Administrator believes any costs remain outstanding. If the Parties agree not to extend the term of the current Site Administrator, they shall immediately proceed to interview and select an individual to recommend to the Court as the new Site Administrator for retention.

On the date a new Site Administrator is approved by the Court that Site Administrator's term will begin to run for a two (2)-year period. Every Site Administrator will be reviewed at the end of the two (2)-year term and will either have his or her term extended or will not be selected for retention of another term.

51. The Site Administrator's Fund shall be an income bearing account set up pursuant to Court Order. Payments for reasonable fees and expenses shall be made from the Site Administrator's Fund upon approval of the Court, with the proviso that all reasonable fees and costs incurred within the two (2)-year period shall be paid from the Site Administrator's Fund pursuant to this Consent Judgment. The term of the Site Administrator's Fund shall be two (2) years from the Effective Date. If the Site Administrator's term is renewed, the term of the Site Administrator's Fund shall be two (2) years from the Site Administrator's term renewal date. The funds in the Site Administrator's Fund shall be used to pay:

- a. The Site Administrator's reasonable fees and expenses incurred pursuant to Paragraph 49; and
- b. The reasonable fees and expenses of the Technical Consultant.

XVII. TECHNICAL CONSULTANT

52. As soon as reasonably possible after appointment of the Site Administrator, DEP, and PPG shall identify for the Site Administrator criteria for firms and/or individuals to serve as the Technical Consultant with regard to the PPG Sites. The Site Administrator shall select the Technical Consultant based upon those criteria. The Site Administrator shall present the rationale for his or her selection to DEP and PPG prior to retention of the Technical Consultant. All candidates for Technical Consultant shall sign a confidentiality agreement, provide a Curriculum Vitae and Statement of Qualifications specific to the position, and disclose any potential conflicts of interest they may have with the Parties. For any and all potential

candidates submitted to the Site Administrator, the Parties shall provide information on any potential conflicts of interest and whether the Parties are willing to waive the conflict(s).

53. After appointment of the Technical Consultant, a retainer agreement shall be prepared by the Site Administrator and PPG that is acceptable to PPG and submitted to the Court for entry setting forth the terms of the Technical Consultant's retention, including, but not limited, to reasonable fee and expense provisions.

54. There will be no fixed term for any Technical Consultant. At any time after a Technical Consultant has been retained for six (6) months, PPG or DEP may unilaterally move for the Technical Consultant to be terminated. The motion shall be confidential and shall be made only to DEP, PPG, and the Site Administrator. PPG, DEP, and the Site Administrator shall then hold a confidential meeting to discuss the motion to terminate the Technical Consultant. If DEP, PPG, and the Site Administrator cannot reach agreement on whether to terminate the Technical Consultant, PPG, DEP, and the Site Administrator will vote on the issue. The majority will determine whether to terminate the Technical Consultant. If a Technical Consultant is terminated, then PPG, DEP, and the Site Administrator shall immediately proceed with the process set forth in Paragraph 52 to recommend to the Court a new Technical Consultant for retention.

55. The purpose of the Technical Consultant shall be to:

- a. Provide technical support to DEP consisting of the review and evaluation of Submittals to ensure that they comply with all Applicable Remedial Provisions and to achieve the goals of the remediation, and to provide DEP with written comments on Submittals within a period of time established by the Site Administrator;
- b. Answer questions from, and to meet and confer with, PPG, DEP, and the Site Administrator regarding Submittals; and

- c. Attend and participate in community or public meetings to discuss proposed remedial measures at the PPG Sites.

56. The Technical Consultant shall send all invoices for fees and expenses to the Site Administrator, and PPG. The fees and expenses of the Technical Consultant shall be paid by the Site Administrator from the Site Administrator's Fund after approval by PPG and the Site Administrator.

XVIII. AUDITS OF SITE ADMINISTRATOR AND TECHNICAL CONSULTANT EXPENSES

57. DEP and PPG, individually or together, shall have the right, but not the obligation, on an annual basis to audit the fees and costs of: (i) the Site Administrator; (ii) the Technical Consultant, and; (iii) any expert and/or consultant hired by the Site Administrator to assist the Site Administrator pursuant to Paragraph 49. DEP and/or PPG shall notify one another, the Site Administrator, the Technical Consultant, and any expert and/or consultant that an audit will be performed on the fees and costs of the Site Administrator, the Technical Consultant, and/or any expert and consultant.

XIX. JERSEY CITY EMPLOYMENT OPPORTUNITIES

58. In its contracting and subcontracting to remediate the PPG Sites, PPG will make all reasonable efforts to ensure that twenty percent (20%) of all contractors procured to undertake the remediation will be from Jersey City.

59. PPG will make all reasonable efforts to ensure that all contractors and subcontractors procured to remediate the PPG Sites will hire and employ twenty percent (20%) of its workforce from Jersey City. PPG will establish a program to provide OSHA Certification training for Jersey City residents (with preference given to residents of the Wards in which PPG

Sites are located) in order that they may work in available position on the remediation at the PPG Sites.

60. PPG shall submit a quarterly report to the Site Administrator detailing the efforts PPG has undertaken to meet the twenty percent (20%) goals set forth above.

XX. INVESTIGATION AND REMEDIATION OF RESIDENTIAL PROPERTIES
WITHIN THE VICINITY OF PPG SITES

61. The Site Administrator shall establish a hot-line call number for residents within 400 feet of the property lines or the edge of CCPW remediation (whichever is greater in distance) of a PPG Site (except the Garfield Avenue Site) to call if the resident suspects the presence of CCPW in or on his/her real property. Residents living in the area from the Garfield Avenue Site west to Ocean Avenue; south to Bayview Avenue and north to Bramhall Avenue may use the hot-line call number if the resident suspects the presence of CCPW in or on his/her real property. The Site Administrator will direct that an inspection and, if needed, any testing, at the real property be undertaken by qualified professionals retained by PPG, and PPG shall undertake the appropriate remedial measures, in the event there exists elevated levels of CCPW on the real property. Any such real property inspection, testing and/or remediation shall be at the highest priority in the Site Administrator's scheduling of site work.

XXI. STIPULATED PENALTIES AND APPLICABILITY
OF GRACE PERIOD RULE

62. DEP may assess stipulated penalties pursuant to Section E of the 1990 ACO. The Grace Period Rule shall not be applicable.

XXII. FORCE MAJEURE

63. The performance by PPG of any obligation under this Consent Judgment shall be excused by floods, riots, fires, strikes, wars, embargoes, acts, injunctions or restraints of

government preventing such performance beyond PPG's reasonable control and which is not due to PPG's fault or negligence ("Force Majeure Event"), provided that: (i) PPG notifies DEP, Jersey City and the Site Administrator in writing within seven (7) days of the occurrence of the event or condition, describing the anticipated length of delay, any measures taken or to be taken to minimize the delay, and the time required to take any such measures to minimize the delay and uses commercially reasonable efforts to mitigate adverse effects, if any, resulting from the Force Majeure Event as they relate to the performance of the obligation; and, (ii) PPG's obligation to perform shall be suspended only for the duration of the Force Majeure Event and a reasonable recovery time thereafter.

XXIII. NOTICES AND SUBMISSIONS

64. Whenever written notice or other documents are required to be submitted by DEP to PPG or by PPG to DEP, they shall be submitted by overnight mail, facsimile, hand delivery, or e-mail, and they shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Party in writing. This Paragraph nullifies and supersedes Paragraphs 80 through 82 of the 1990 ACO.

As to Plaintiffs DEP & Administrator:

Thomas Cozzi
Assistant Director
Site Remediation Program
New Jersey Department of Environmental Protection
401 East State Street
P.O. Box 028
Trenton, NJ 08625

As to PPG:

Mark Terril
Director of Environmental Affairs
PPG Industries, Inc.
4325 Rosanna Drive
Building C
Allison Park PA 15101
Phone: (412) 492-5466 Fax: (412) 492-5377
E-mail: terril@ppg.com

Steven F. Faeth, Esq.
Senior Counsel - EHS
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Pittsburgh PA 15272
Phone: (412) 434-3799
Fax: (412) 434-4292
E-mail: sfaeth@ppg.com

Counsel of Record:

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Newark, NJ 07105-2249
Phone: (973) 491-3516
Fax: (973) 491-3555
E-mail: joseph.lagrotteria@leclairryan.com
Attorney for Defendant PPG

As to Jersey City
Corporation Counsel Bill Matsikoudis
280 Grove Street
Jersey City NJ, 07302
Phone: (201) 547-4667
E-mail: Matsikoudisw@jcnj.org

XXIV. EFFECTIVE DATE

65. The Effective Date of this Consent Judgment shall be the date upon which this
Consent Judgment is entered by the Court.

XXV. RETENTION OF JURISDICTION

66. This Court retains jurisdiction over both the subject matter of this Consent Judgment, and the Parties for the duration of the performance of the terms and provisions of this Consent Judgment and to effectuate or enforce compliance with the terms of the Consent Judgment.

XXVI. APPENDICES

67. The following appendices are attached to this Consent Judgment:
- a. Appendix A: 1990 ACO;
 - b. Appendix B: Additional Sites Added to the 1990 ACO by Agreement with DEP.

XXVII. MODIFICATION

68. This Consent Judgment, the 1990 ACO, and the 1990 Amendment to the ACO, represent the entire agreement between DEP, Administrator, and PPG concerning the PPG Sites, and supersede all prior negotiations, representations or agreements, either written or oral, unless otherwise specifically provided.

69. Material modifications to the terms of this Consent Judgment may only be made with this Court's approval. Non-material modifications to the terms of this Consent Judgment may only be modified by agreement of the Parties. All such modifications shall be made in writing.

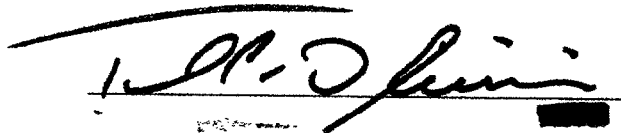
XXVII. SIGNATORIES/SERVICE

70. Each undersigned representative of a Party to this Consent Judgment certifies that he or she is authorized to enter into the terms and conditions of this Consent Judgment, and to execute and legally bind such party to this Consent Judgment.

71. This Consent Judgment may be signed and dated in any number of counterparts, each of which shall be an original, and such counterparts shall together be one and the same Consent Judgment.

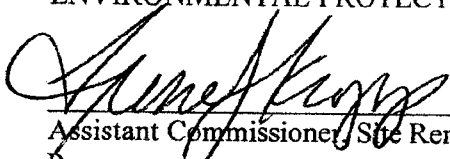
72. PPG shall identify on the attached signature pages, the name, address and telephone number of an agent who is authorized to accept service of process by mail on its behalf with respect to all matters arising under or relating to this Consent Judgment. The Settling Defendant agrees to accept service in this manner, and to waive the formal service requirements set forth in R. 4:4-4, including service of a summons.

SO ORDERED this 26th day of June, 2009.


THOMAS P. OLIVIER, J.C.D.


NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Dated: 6/18/09

By: 
Assistant Commissioner, Site Remediation
Program

NEW JERSEY SPILL COMPENSATION
FUND

Dated: 6/18/09

By: 
Administrator

New Jersey Spill Compensation Fund

ANNE MILGRAM
ATTORNEY GENERAL OF NEW
JERSEY

Dated: June 18, 2009

By: 

Anna M. Cascurain
Deputy Attorney General

PPG INDUSTRIES, INC.

Dated: _____

By: _____

NAME

TITLE

CITY OF JERSEY CITY

Dated: June 24, 2009

By: 

William C. Matsikoudis
Corporation Counsel

New Jersey Spill Compensation Fund


ANNE MILGRAM
ATTORNEY GENERAL OF NEW
JERSEY

Dated: _____

By: _____
Anna Lascurain
Deputy Attorney General

PPG INDUSTRIES, INC.

Dated: 6/24/09

By: 
Reginald Norton
Vice President, Environment,
Health and Safety

CITY OF JERSEY CITY

Dated _____

By: _____
William C. Matsikoudis
Corporation Counsel

APPENDIX A:

1990 ACO

APPENDIX B: ADDITIONAL SITES
ADDED TO THE 1990 ACO BY AGREEMENT WITH DEP

The sites listed below are those added to the 1990 ACO by letter agreements between PPG and DEP dated August 2, 1990, September 5, 1990 and November 29, 1990. Also included below (sites 174, 186, 202, 203, 204 & 207) are the so-called "Orphan Sites" accepted by PPG:

| <u>SITE #</u> | <u>SITE NAME</u> | <u>LOCATION</u> | <u>BLOCK</u> | <u>LOT</u> |
|---------------|---------------------------|-----------------|--------------|------------|
| 16 | Linden East (Levy & Sons) | | | |
| 142 | Pine Street 3 | | | |
| 151 | Halladay Street 3 | | | |
| 156 | Gregory Avenue Apartments | | | |
| 159 | Pacific Avenue 2 | | | |
| 160 | Johnston Avenue 1 | | | |
| 161 | Maple Street 1 | | | |
| 164 | Value City Furniture | | | |
| 174 | Dennis T. Collins Park | | | |
| 186 | Garfield Avenue | | | |
| 202 | Caven Point Road | | | |
| 203 | Claremont Associates | | | |
| 204 | Conrail Edgewater Branch | | | |
| 207 | Garfield Avenue #2 | | | |

Attachment 4

LeClairRyan

A Virginia Professional Corporation

JOSEPH F. LAGROTTERIA

GREGORY S. THOMAS

DOROTHY M. LAGUZZA

ADAM G. HUSIK

One Riverfront Plaza

1037 Raymond Blvd, Sixteenth Floor

Newark, New Jersey 07102

(973) 491-3600

Attorneys for Plaintiff-Counterclaim Defendant PPG Industries, Inc. ("PPG")

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

PPG INDUSTRIES, INC.,

Plaintiff-Counterclaim Defendant.

V.

UNITED STATES OF AMERICA,
UNITED STATES DEPARTMENT OF
COMMERCE, PENNY PRITZER, SECRETARY
OF COMMERCE, IN HER OFFICIAL CAPACITY,
and UNITED STATES DEPARTMENT OF DEFENSE.

Defendants-Counterclaimants.

Civil Action No.
2-12-cv-03526 (KM)(MAH)

**PPG INDUSTRIES, INC.'S AMENDED
SUPPLEMENTAL OBJECTIONS AND RESPONSES TO
THE UNITED STATES' FIRST SET OF INTERROGATORIES 21 THROUGH 25**

Pursuant to Rule 33 of the Federal Rules of Civil Procedure, the Local Civil Rules of the United States District Court and the April 16, 2014 Discovery Order entered by

Magistrate Judge Michael A. Hammer (ECF No. 71) and the April 16, 2014 Second Amended Pretrial Scheduling Order (ECF No. 70), Plaintiff PPG Industries, Inc. (hereinafter “PPG”), by its undersigned counsel, hereby provides the following Amended Supplemental Responses to Defendant’s First Set of Interrogatories, specifically Interrogatory Nos. 21, 22, 23, 24 and 25 as follows:

I. PPG’s GENERAL OBJECTIONS AND LIMITATIONS

PPG submits the following General Objections, which apply to each and every one of Defendants’ Interrogatories. For convenience, these General Objections are set forth below and are not necessarily repeated after each Interrogatory. The assertion of the same, similar or additional Responses in the specific Responses to these Interrogatories does not waive any of PPG’s General Objections as set forth below.

1. PPG objects to the General Instructions and Definitions set forth in Defendants’ First Set of Interrogatories to the extent they deviate from or purport to impose requirements other than or in addition to those required by the Federal Rules of Civil Procedure, the Local Civil Rules of the United States District Court for the District of New Jersey, and the Court’s April 16, 2014 Discovery Order (“Discovery Order”) (ECF No. 71) and the April 16, 2014 Second Amended Pretrial Scheduling Order (“Amended Pretrial Scheduling Order”) (ECF No. 70). Therefore, PPG will respond in accordance with the Federal Rules of Civil Procedure, the Local Civil Rules of the United States District Court for the District of New Jersey, the Discovery Order and the Amended Pretrial Scheduling Order.

2. PPG reserves the right to challenge the competency, relevance, and admissibility, at trial or any subsequent proceeding, in this or any other action, of any statement made or information provided or document produced in response to these Interrogatories.

3. PPG objects to these Interrogatories insofar as they are directed to or made on behalf of entities or persons who are not parties to this case.

4. PPG objects to these Interrogatories insofar as they attempt to elicit protected documents or information subject to the attorney/client privilege; the work product doctrine; a joint or common defense privilege; the confidentiality of documents containing the impressions, conclusions, opinions, legal research or theories of PPG or its attorneys; or seek materials prepared in anticipation of litigation. PPG asserts each and every one of the foregoing privileges and protections applicable to the information sought to the fullest extent provided by law, applicable rules and any future court orders.

5. PPG objects to these Interrogatories to the extent that they seek documents or information not within PPG's possession, custody or control.

6. PPG objects to these Interrogatories insofar as they seek documents and information that are within Defendants' knowledge and possession or to which Defendants have equal access.

7. PPG objects to these Interrogatories insofar as they are vague and ambiguous, overly broad, unduly burdensome and seek documents and/or information outside the scope of permissible discovery pursuant to the Federal Rules of Civil, the Local Civil Rules of the United States District Court for the District of New Jersey, the Discovery Order and the Amended Pretrial Scheduling Order.

8. PPG objects to these Interrogatories to the extent that they are unlimited in time or otherwise not limited to a time frame relevant to this litigation and the parties identified in this litigation on the grounds that such Interrogatories seek documents and information neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. PPG further object to each such Interrogatory as overly broad and unduly burdensome.

9. PPG objects to these Interrogatories insofar as they seek discovery of irrelevant information or documents.

10. PPG objects to these Interrogatories wherein the terms used are so vague and ambiguous as to be essentially meaningless and limitless in scope.

11. PPG bases its objections and responses to these Interrogatories on information currently available to it, and reserves the right to amend the objections and responses to conform to information and documents which may be obtained through ongoing discovery and investigation, in accordance with the applicable Federal Rules of Civil Procedure, the Local Civil Rules of the United States District Court for the District of New Jersey, the Discovery Order and the Amended Pretrial Scheduling Order.

12. PPG objects to Interrogatories that seek the disclosure of documents that will cause annoyance, embarrassment, oppression or undue burden or expense.

13. Any document referenced herein is not to be considered an adoptive admission of any fact/opinion contained therein, nor is the referenced certification or affirmation of the truth or accuracy of any facts/opinions contained therein. The documents are supplied as a possible source of hearsay information and as a good faith response to such Interrogatories.

14. PPG objects to each Interrogatory which requires the production of documents and records too voluminous to append hereto, and said documents and records which are properly within the purview of discovery will be made available in accordance with the applicable Federal Rules of Civil Procedure, the Local Civil Rules of the United States District Court for the District of New Jersey, the Discovery Order and the Amended Pretrial Scheduling Order.

15. PPG objects to each Interrogatory which requires the recitation of facts or opinions that will be contained within PPG's expert reports and back-up material, to the extent that such information is required to be produced at the appropriate time pursuant to the Federal Rules of Civil Procedure, the Local Civil Rules of the United States District Court for the District of New Jersey, the Discovery Order and the Amended Pretrial Scheduling Order and any applicable future court orders in this litigation.

16. PPG reserves the right to supplement, amend or correct its Responses in the event of the development or availability of additional responsive, non-privileged information which warrants such supplementation, correction or amendment.

17. PPG objects to these Interrogatories to the extent that Defendants may seek to improperly utilize these Responses, and the documents produced in connection with these Responses, in other litigation; and that any attempt to utilize this discovery in unrelated litigation is improper and in violation of the Federal Rules of Civil Procedure, the Local Civil Rules of the United States District Court for the District of New Jersey, the Discovery Order, the Amended Pretrial Scheduling Order and any applicable case management and other court orders in this litigation.

The foregoing General Objections are incorporated by reference within each of the following objections and responses to specific Interrogatories. All responses to specific Interrogatories are made subject to, and without waiving these General Objections, whether or not specifically reiterated in the Responses themselves.

II. PPG'S DEFINITIONS

The following definitions and instructions apply to and define terms used in the interrogatories below. They are to be considered an integral part of each interrogatory to the extent that a defined term is used and an instruction is applicable.

1. As used herein, "seeks the discovery of irrelevant information or documents" or words to that effect mean that the Request seeks information and documents (1) having no tendency to make the existence of any fact of consequence to the determination of the instant case more or less probable than it would be without such information or documents, and (2) which do not appear to be reasonably calculated to lead to the discovery of admissible evidence.

2. As used herein, "unduly burdensome" means that the Request seeks information and documents which are of little or no benefit to this action in that the value of their production is far outweighed by the burden of producing them, especially where Defendants can obtain the information or documents from other sources.

3. As used herein, "over broad" or "overly broad" means that the Request seeks at least in part, documents and/or information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence.

4. As used herein, "vague and ambiguous" means that PPG is unable to ascertain with certainty what information and/or documents are being requested.

5. As used herein, "NPRC" means Natural Products Refining Company.

**III. PPG's SPECIFIC OBJECTIONS TO CERTAIN OF DEFENDANTS'
GENERAL INSTRUCTIONS AND DEFINITIONS**

1. Plaintiff objects to Defendants' definition of "PPG," on the grounds that it is vague, ambiguous, overly broad and unduly burdensome, as it encompasses persons and business entities that are not parties to this litigation. Plaintiff also objects to the extent that Defendants seek to require Plaintiff to provide documents that are not within its possession, custody or control. For the purpose of responding to any Interrogatory encompassing the term "PPG," Plaintiff shall construe the term to mean PPG Industries, Inc., Pittsburgh Plate Glass Company, and Columbia-Southern Chemical Corporation.

INTERROGATORIES

21. To the extent that PPG alleges or contends that an agency of the United States owned facilities, machinery, or equipment at the Sites, specify by type and by building or other particular location each and every facility, or item of machinery or equipment owned by an agency of the United States from which there was any release of a hazardous substance at the Sites.

RESPONSE: Plaintiff objects to this Interrogatory to the extent that it seeks information that is within the public domain and within Defendants' possession, knowledge, or control.

Without waiving the General and foregoing objections, PPG at this time does not contend that the United States owned, held title to, or held a mortgage, lien or other security interest on any buildings, machinery, equipment, structures, rail cars, railroad spur or track, or other facilities at the Sites but rather that the totality of the facts and circumstances establish that the Government owned waste product generated by NPRC and asserted operational control over NPRC from World War I through World War II.

Plaintiff states that the Government's requirements for obtaining chrome ore products during World War I and World War II and the Government's orders imposed on NPRC for increased production during World War I and World War II necessitated facilities expansion at NPRC, including but not limited to the installation of a new kiln.

PPG further responds by stating that the totality of the facts and circumstances establishes that the United States maintained strict control and authority over the specific operations of NPRC's facilities in Jersey City (including labor controls, the processing of chromium ore, waste processing, generation, and handling) during wartime in order to maximize the production of sodium bichromate which was classified as a strategic war material.

Plaintiff refers the Government to the documents that it has produced in this litigation including, but not limited to the documents with the following Bates range numbers: PPGNPR0000555-560 (e.g. "As these are emergency facilities for the benefit of the war program, it is requested that Defense Plant Corporation be instructed to provide the necessary financial assistance to the company for this installation."); PPGNPR0027799-27806 (e.g. "It is requested that further effort be made to provide additional labor to the chromium chemical producers, particularly

in the New Jersey area. It is suggested that an effort be made to provide 7-day operation at the Natural Products Plant.” “It was determined that the limiting factor for production at Natural Products is the furnace capacity . . . An additional rotary kiln can be installed for an expenditure of less than \$50,000. . . . Government financing will be required.”); PPGNPR0027995-28020 (e.g. “In July 1941, the state of the National emergency required control over chromite as a strategic war material and the Ferro-Alloys Branch of the Office of Production Management accordingly issued Conservation Order M-18-a which controlled both chromite and chrome chemicals” . . . “An Industry Advisory Committee was formed September 23, 1942 and its meets were largely held for the purpose of developing satisfactory distribution controls and means for obtaining increased output.” . . . “provision was made for the use of high grade 55% Russian metallic ore by all producers in June 1944” . . . “ . . . Defense Supplies Corporation was requested to underwrite a subsidy program which reimbursed producers of chrome chemicals for the incremental cost of Russian ore.” . . . “In September, 1943 Order M-18-b . . . was issued providing for complete allocation control . . .”); and PPGNPR0008733-8736 (e.g. “All producing plants with one exception have been visited, and a number of possible means of obtaining increased output from existing equipment have been developed. . . it has been found that one of the plants can materially increase output by the elimination of reworking of ore, and that two other plants can similarly effect substantial increases in output by means of utilizing high grade metallurgical ore . . .”)

Plaintiff also refers the Government to the documents beginning with the following Bates numbers or Bates ranges:

PPGNPR0003112-3138; PPGNPR0000483-491; PPGNPR13373-13382; PPNPR0015710-15712; PPGNPR0015719; PPGNPR0015723; PPGNPR0015727; PPGNPR0015728-15729; PPGNPR0015730-15735 (e.g. “Arrangements be made to increase production of sodium bichromate pending operation of new facilities by . . . “purchasing waste sludge from production operations to eliminate reworking of ore and thus increase production by an additional 800,000 pounds per month. It is estimated the above can be accomplished through subsidies “The scheduled program is presented as a justification for the recommended measures to (1) increase production through the sale by Metals Reserve Company of high chromium content ore, now held in stock, the purchase of waste sludge from production operations, the installation of new equipment and provisions of new facilities, and (2) increase control through amendment to the small order exemption close of allocation Order M-18-b.”); PPGNPR0028360; PPGNPR0029665; PPGNPR0003703; and PPGNPR001413.

PPG further responds that these and other historical documents must be interpreted within the context of and with an understanding of contemporaneous historical circumstances, including but not limited to the stark necessity of wartime chromium production and the totality of the relevant facts and circumstances

relative to same. Accordingly, PPG will rely upon its experts to opine on these, and other, documents discovered through the course of discovery. Plaintiff thus reserves the right to further amend and/or supplement its Response to this Interrogatory.

22. To the extent that PPG alleges or contends that an agency of the United States mandated, directed, required or ordered PPG to expand existing facilities or to construct or install new facilities at the Sites, specify which agency did so and when, and which facilities such agency required be expanded, constructed or installed.

RESPONSE: Plaintiff further objects to this Interrogatory to the extent that it seeks information that is within the public domain and within Defendants' possession, knowledge, or control.

Without waiving the General and foregoing objections, Plaintiff states that the Government's requirements for obtaining chrome ore products during World War I and World War II and the Government's orders imposed on NPRC for increased production during World War I and World War II necessitated facilities expansion, including but not limited to the installation of a new kiln.

PPG further responds by stating that the totality of the facts and circumstances establishes that the United States maintained strict control and authority over the specific operations of NPRC's facilities in Jersey City (including labor controls, the processing of chromium ore, waste processing, generation, and handling) during wartime in order to maximize the production of sodium bichromate which was classified as a strategic war material.

For example, publicly available Government documents demonstrate that the United States undertook concerted and coordinated efforts throughout World War II to maximize the production of sodium bichromate and other chromium chemicals which were well-recognized as strategic war material. The Materials Branch, Production Division, of the headquarters of the Armed Service Forces ("ASF") sought to focus further efforts upon increasing the labor force available for chromium chemical production in order to obtain maximum operation of chromium chemical plants.

On February 10 and 11, 1944, Mrs. M.J. Perlow and Mr. W.H. Healey, War Production Board and Captain Gunyou, Production Division, ASF conducted site visits to each of the chromium chemical producers' facilities in the New York City area, including NPRC's Jersey City facility, with the specific goal of determining "the possibilities of rapidly increasing production of sodium bichromate by 2,000,000 per month." PPGNPR0027802-27804. Specifically these Government

representatives met with Mr. H.A. Goman, president of NPRC, Mr. Stanton, General Manager, Mr. J. J. Vetter, Plant Superintendent; and Mr. Hennington, Technical Director. *Id.* A February 18, 1944 trip report memo authored by T.C. Keeling, Major, C.A.C., Chief, Chemicals Section, Material Branch, Production Division, ASF, includes a summary of this meeting with NPRC representatives which confirms that (a) Government representatives requested that the NPRC facility was requested to submit a request to the WPB with a price increase to add a Sunday operational shift to increase production by about 300,000 pounds per month; (b) that NPRC “might be able to produce up to 500,000 pounds of additional bichromate per month by wasteful use of chromite ore without expenditure for additional plant facilities, but the ore losses will have to be subsidized.”; and (c) “It was determined that the limiting factor for production at Natural Products is the furnace capacity. All other facilities, including ore handling equipment, are available to increase production approximately 500,000 per month. An additional rotary kiln can be installed for an expenditure of less than \$50,000. Some idle kilns are available and, if satisfactory, can be installed in a very short time. Government financing will be required.” *Id.*

A March 17, 1944 Memo specifically references Government demands to increase production to 7 days per week at the NPRC Jersey City plant and further confirms that representatives of the Production Service Branch of the ASF and/or the War Production Board had conducted a recent site visit to inspect the operations of the NPRC plant. PPGNPR0027799.

On May 16, 1944, the War Production Board recommended that Defense Plant Corporation financing be made available in the amount of \$82,792 to install additional equipment to expand production at the NPRC’s Jersey City facility so that an additional estimated 600,000 pounds of sodium bichromate per month could be produced at this facility. PPGNPR0000558-0000560. On August 16, 1944, the War Productions Board subsequently withdrew this recommendation when NPRC advised it that it was not accepting Government financing relative to this project. PPGNPR0000555-0000557.

Plaintiff also refers the Government to its Responses and Objections to Interrogatory No. 21 which is incorporated here by reference.

PPG further responds that these and other historical documents must be interpreted in the context and with an understanding of contemporaneous historical facts and circumstances, including but not limited to the stark necessity of wartime chromium production and the totality of circumstances relative to same. Accordingly, PPG will rely upon its experts to opine on these, and other, documents discovered through the course of discovery. Plaintiff thus reserves the right to amend and/or supplement its Response to this Interrogatory.

23. To the extent that PPG alleges or contends that an agency of the United States owned chromite after it was delivered to the Sites, state the volumes or quantities of such chromite, the agency which owned such chromite, the beginning and ending dates of ownership of such volumes or quantities, and on which of the Sites such chromite was stored or located.

RESPONSE: *See* Plaintiffs' Response to Interrogatory No. 6, *supra*, which is incorporated here by reference.

Plaintiff objects to this Interrogatory to the extent that it seeks information that is within Defendants' possession, knowledge or control, particularly to the extent that this Interrogatory seeks information concerning United States "owned chromite" which is information in Defendants' possession, custody and control.

Without waiving the General and foregoing objections, Plaintiff states that throughout wartime periods, the Government procured and stockpiled chromite ore which was supplied and sold by Metals Reserve Company ("MRC") (which was a subsidiary of the Reconstruction Finance Corporation and was wholly-owned by the U.S. Government) to NPRC for production of the chromium chemicals required by the Government. Defendants owned and controlled the supply of all chrome ore. NPRC was forced to purchase all chrome ore at a Government-regulated price through the Metals Reserve Company. Further, the Government through the War Production Board, carefully monitored and controlled the distribution of chromium chemicals through allocation of the total supply available nationwide. The totality of the facts and circumstances shows that during periods of wartime, including WWII, the United States effectively owned all chrome ore through to the finished product from the chrome chemical producers' plants, carefully managed and controlled all distribution and set and controlled the price of these products.

NPRC entered into contracts with Metals Reserve Company which determined the volume, quantity, type of chrome ore, pricing, shipping and other terms for the sale of chrome ore to NPRC. For example, these contracts included Contract No. MR-C-1 S-996 (Chrome) dated April 18, 1944 (See PPGNPR0015869) relative to the purchase of 2,071 long dry tons of South African Transvaal chrome ore. *See* PPGNPR0015847, PPGNPR0015870 and PPGNPR0015872. Other contracts between MRC and NPRC included Contract No. MR C-1 S-542 (Chrome) dated June 8, 1943. *See* PPGNPR0015862 and PPGNPR0015850.

The approval process for contracts between MRC and NPRC for the sale of chrome ore also was determined in accordance with Government Order M-18-a. Under this process, the War Production Board ("WPB") was required to review and make recommendations for MRC to sell and deliver chrome ore from Government-controlled stockpiles in response to each and every request by NPRC for purchase of chrome ore. *See e.g.* May 29, 1944 Letter from the WPB to S. D. Strauss, Vice President, Metals Reserve Company recommending that "[p]ursuant to Order M-18-A.....[MRC sell and deliver] 2,000 gross tons of South African Grade B lumpy chrome ore from Baltimore stockpile 4 Pile H1 for delivery to [NPRC in Jersey City]." PPGNPR0015864. The WPB and the MRC strictly controlled the scheduling, shipments and delivery of chrome ore to NPRC and determined the specific type of chrome ore that was made available to NPRC. *Id.* The volume and quantity of the ore that MRC sold to NPRC was governed by a schedule that was specifically regulated by MRC and the WPB. *Id.* *See also* PPGNPR0015830-PPGNPR0015874.

A July 13, 1944 letter from L.R. Boulware, Operations Vice Chairman of the WPB to S.D. Strauss, Vice President of MRC demonstrates the Government's recognition of the critical nature of providing a continuous supply of chrome ore to NPRC to support essential military requirements during WW II. PPGNPR0015851 This July 13, 1944 WPB letter further confirms that NPRC's production of sodium bichromate "represents approximately 10% of the entire output of the country." and that MRC was "now the only source of chrome ore in this country and , if it refuse[d] to provide ore to [NPRC], a shutdown at the end of August [was] inevitable. According to the latest figures such action [would have forced] the elimination of essential civilian uses and curtailment of military requirements." *Id.* Accordingly, the WPB requested [MRC] to assure [NPRC] that required amounts of chrome ore to ensure continuous production will be made available prior to August 1, 1944, and notify [WPB] of such action." *Id.*

In addition, Plaintiff refers the Government to the documents beginning with the following Bates numbers: PPGNPR0008745 (e.g. "I would propose that they increase the throughput of ore with the objective of stepping up bichromate production to meet your goals, but without regard to normal economics of recovering the maximum chrome value from its ores yielding a sludge relatively high in chrome compared to normal sludge discarded at bichromate plants, and have Metal Reserve purchase the sludge at a price sufficiently high to compensate for the increased consumption of ore. . . . One company is investigation that-though it might be possible to take the sludge, sell it and get sufficient revenue to make up for uneconomic, wasteful practice and utilize the sludge for an end product having a commercial outlet. . . . You could stockpile the sludge at the plant and when the war is over stop buying on some definite schedule. It may have some resale value."; PPGNPR0009360 (e.g. "Negotiations are under way for large scale production of high grade ore in this country. Building of stock pile is well under way."; PPGNPR0010970; PPGNPR0012470; PPGNPR0012478 (e.g. "That the Ferro Alloys

Branch of the War Production Board exert every possible effort to lift chrome ores at Laurence Marquie at a minimum rate of 15,000 gross tons per month, starting as early as possible . . ."); PPGNPR0012484 ("It was pointed out that the price which the Metals Reserve Company is asking for Transvaal ores is considerably in excess of the price of that ore on the open market. Industry cannot purchase the ores on the open market . . ." . . . "Committee members point out that many plants had curtailed production of more profitable departments so that those units producing bichromates so urgently need for military requirements could be kept operating at capacity."); PPGNPR0012490; PPGNPR0012495; PPGNPR0012507; PPGNPR0012512; PPGNPR0012520; PPGNPR0012530; PPGNPR0012537; PPGNPR0012543; PPGNPR0012548; PPGNPR0012550; PPGNPR0013667; PPGNPR0014125; PPGNPR0014129; PPGNPR0014134; PPGNPR0014142; PPGNPR0014145; PPGNPR0014148; PPGNPR0014832; PPGNPR0014833; and PPGNPR0014836.

PPG further responds that these and other historical documents must be interpreted within the context of and with an understanding of contemporaneous historical facts and circumstances, including but not limited to the stark necessity of wartime chromium production and the totality of the relevant facts and circumstances. Accordingly, PPG will rely upon its experts to opine on these, and other, documents revealed through the course of discovery. Plaintiff thus reserves the right to further amend and/or supplement its Response to this Interrogatory.

24. To the extent that PPG alleges or contends that an agency of the United States owned chromite processing or chromium chemical manufacturing residues, sludges, or wastes at the Sites, state the volumes or quantities of such materials, the beginning and ending dates of ownership of such volumes or quantities, where at the Sites such materials were stored or located, what was ultimately done with such alleged Government property, who took such action and when, and to which agency of the United States such action was reported and by whom.

RESPONSE: *See Plaintiffs' Response to Interrogatory No. 12 and 23, supra* incorporated here by reference.

By way of further response, Plaintiff refers the Government to a February 18, 1944 memo which establishes that Government representatives met with NPRC executives on February 10 or 11, 1944 and encouraged NPRC to rapidly increase its production volume by taking various measures including producing "up to 500,000 pounds of additional bichromate per month by wasteful use of chromite ore without

expenditure for additional plant facilities, but the ore losses will have to be subsidized." PPGNPR0027802 -27804. *See also* a Memoranda with Summaries of November 1, 1943, January 11, 1944, February 9, 1944, May 10, 1944 and July 26, 1944 Meetings of Primary Chromium Chemical Producers Industry Advisory Committee. PPGNPR0012520-12529; PPGNPR0012512-12519; PPGNPR0008745-8751; PPGNPR0012507-12511; PPGNPR0012484-12489.

A March 1, 1944 Memorandum prepared by M.R. Perlow and W.H. Healey of the War Production Board discusses the results of a February 1944 site visit, and specifically states the following with respect to NPREC:

"B[y] elimination of reworking ore, the Natural Products Refining Company can increase production between 600,000 and 800,000 pounds of sodium bichromate per month without installation of new equipment. As in the case of Mutual Company, they would require compensation on the basis of the sludge, similar to Mutual's. The exact analysis is not at present available but they would have to be compensated to the extent of about \$20,000 per month. We believe this can best be accomplished through purchase by Metals Reserve Corporation."

"By installation of 8' x 80' kiln, the Natural Products Refining Company could effect a substantial increase in their production. It would probably not be necessary to install very much additional equipment and the total cost of the job would be less than \$30,000.00 and would require perhaps 60 days for completion."

This Memorandum further contains the following recommendation:

"It is recommended that this company install one new kiln and that arrangements be made to have the Metals Reserve Corporation purchase chrome sludges to permit Natural to eliminate the reworking of ore. The value of this sludge would be approximately \$20,000 per month. It is expected that these two provisions will bring about an increase in Natural's production of approximately 1,000,000 per month. It is also desirable that the price of ore be reduced."

PPGNPR0008726-8730

By way of further response, Plaintiff refers the Government to the documents beginning with the following Bates numbers: PPGNPR0008745 (e.g. "Ford-You stockpile the sludge at the plant and when the war is over stop buying it on some definite schedule. It may have some resale value. Rose-How would you stockpile something like that? Healey-I would expect it would be outdoor storage-no other practical way."); PPGNPR0015710; PPGNPR0027799-27804; PPGNPR0027805; PPGNPR0027995-28020; and PPGNPR0028360.

PPG further responds that these and other historical documents must be interpreted within the context of and with an understanding of contemporaneous historical facts and circumstances, including but not limited to the stark necessity of wartime chromium production and the totality of the relevant facts and circumstances relative to same. Accordingly, PPG will rely upon its experts to opine on these, and other, documents discovered through the course of discovery. Plaintiff thus reserves the right to further amend and/or supplement its Response to this Interrogatory.

25. To the extent that PPG alleges or contends that an agency of the United States required that PPG increase the amounts of hazardous wastes generated or stored at the Sites, specify which agency did so and when, and the extent to which such increases occurred.

RESPONSE: Plaintiff objects to this Interrogatory to the extent that it seeks information that is within Defendants' possession, knowledge and/or control. Plaintiff further objects to this Interrogatory on the grounds that Defendants' definition of PPG is overly broad and improperly includes NPRC.

Plaintiff refers the Government to its Responses and Objections to Interrogatory Nos. 21 through 24 which are incorporated here by reference.

Without waiving the General and foregoing objections, Plaintiff responds that it does not contend that an agency of the United States required that Plaintiff, PPG Industries, Inc., "increase the amount of hazardous wastes generated or stored at the Sites." Plaintiff refers Defendants to the allegations contained in the First Amended Complaint which properly characterize the claims in this matter.

With respect to NPRC, and without waiving the General and foregoing objections, Plaintiff does contend that the United States required that NPRC "increase the amount of hazardous wastes generated or stored at the Sites." For example, a February 18, 1944 memo establishes that Government representatives met with NPC executives on February 10 or 11, 1944 and encouraged NPRC to rapidly increase its production volume by taking various measures including producing "up to 500,000 pounds of additional bichromate per month by wasteful use of chromite ore without expenditure for additional plant facilities, but the ore losses will have to be subsidized." PPGNPR0027802 -27804. *See also* Memoranda with Summaries of November 1, 1943, January 11, 1944, February 9, 1944, May 10, 1944 and July 26, 1944 Meetings of Primary Chromium Chemical Producers Industry Advisory Committee. PPGNPR0012520-12529; PPGNPR0012512-12519; PPGNPR0008745-8751; PPGNPR0012507-12511; PPGNPR0012484-12489.

A March 1, 1944 Memorandum prepared by M.R. Perlow and W.H. Healey of the War Production Board further discusses the results of the February 1944 site visit, specifically focusing upon efforts to increase chromium chemical production. With respect to NPRC, this Memorandum states the following:

"B[y] elimination of reworking ore, the Natural Products Refining Company can increase production between 600,000 and 800,000 pounds of sodium bichromate per month without installation of new equipment. As in the case of Mutual Company, they would require compensation on the basis of the sludge, similar to Mutual's. The exact analysis is not at present available but they would have to be compensated to the extent of about \$20,000 per month. We believe this can best be accomplished through purchase by Metals Reserve Corporation."

"By installation of 8' x 80' kiln, the Natural Products Refining Company could effect a substantial increase in their production. It would probably not be necessary to install very much additional equipment and the total cost of the job would be less than \$30,000.00 and would require perhaps 60 days for completion."

This Memorandum further contains the following recommendation:

"It is recommended that this company install one new kiln and that arrangements be made to have the Metals Reserve Corporation purchase chrome sludges to permit Natural to eliminate the reworking of ore. The value of this sludge would be approximately \$20,000 per month. It is expected that these two provisions will bring about an increase in Natural's production of approximately 1,000,000 per month. It is also desirable that the price of ore be reduced."

PPGNPR0008726-8730

The Government's Chemicals Bureau Requirements Committee also carefully monitored production levels for chromium chemical plants throughout the United States to meet its allocation requirements throughout WWII and when necessary, the Government would request NPRC to increase its production volumes. *See e.g.* PPGNPR0027991-27992.

On January 22, 1945, the Primary Chromium Chemicals Producers Industry Advisory Committee met and was informed that there were new and urgent U.S. military requirements for increased nationwide chromium chemical production of more than 1 million pounds and the Chemicals Bureau had decided to seek a further increase totaling 2 million pounds. PPGNPR0015332-153337.

In addition, Plaintiff refers the Government to the documents with the following Bates numbers: PPGNPR0015084-15087, a memorandum summarizing a September 12, 1944 Chromium Chemicals Task Committee meeting which confirms and discusses (1) the Government's requirements for increased production of chromium chemicals and (2) the Government's awareness of the generation of chrome dust in the chromium chemicals producers' plant operations at levels above the accepted toxicity limit.

PPG further responds that these and other historical documents must be interpreted within the context of and with an understanding of contemporaneous historical facts and circumstances, including but not limited to the stark necessity of wartime chromium production and the totality of the relevant facts and circumstances relative to same. Accordingly, PPG will rely upon its experts to opine on these, and other, documents discovered through the course of discovery. Plaintiff thus reserves the right to further amend and/or supplement its Response to this Interrogatory.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 22nd day of May, 2014, I caused a true and correct copy of the foregoing "PPG INDUSTRIES, INC.'S AMENDED SUPPLEMENTAL OBJECTIONS AND RESPONSES TO THE UNITED STATES' FIRST SET OF INTERROGATORIES 21 THROUGH 25" to be served by electronic mail upon:

Lewis M. Barr, Trial Attorney
United States Department of Justice
Environmental and Natural Resources Division
Environmental Defense Section
P.O. Box 7611
Washington, DC 20044
lewis.barr@usdoj.gov

s/ Dorothy M. Laguzza

DOROTHY M. LAGUZZA